The opinions and conclusions of a geotechnical report are based on the interpretation of information obtained by random borings. Therefore the actual site conditions may vary somewhat from those indicated in this report. It is our opinion that field observations by the geotechnical engineer who has prepared this report are critical to the continuity of the project.

Slope Angles Allowable slope angle for cuts in the native soils is dependent on soil conditions, slope geometry, the moisture content and other factors. Should deep cuts be planned for this site, we recommend that a slope stability analysis be performed when the location and depth of the cut is known.

DRAINAGE AND GRADIENT

Adequate site drainage should be provided in the foundation area both during and after construction to prevent the ponding of water and the wetting or saturation of the subsurface soils. We recommend that the ground surface around the structure be graded so that surface water will be carried quickly away from the building. The minimum gradient within 10 feet of the building will depend on surface landscaping. We recommend that paved areas maintain a minimum gradient of 2%, and that landscaped areas maintain a minimum gradient of 8%. It is further recommended that roof drain downspouts be carried at least 5 feet beyond all backfilled areas and discharged a minimum 10 feet away from the structure. **Proper discharge of roof drain downspouts may require the use of subsurface piping in some areas.** Under no circumstances should a 'dry well discharge' be used on this site, unless specifically sited by a Geotechnical Engineer. Planters, if any, should be so constructed that moisture is not allowed to seep into foundation areas or beneath slabs or pavements.

If adequate surface drainage cannot be maintained, or if subsurface seepage is encountered during excavation for foundation construction, a full perimeter drain is recommended for this building. It is recommended that this drain consist of a perforated drain pipe and a gravel collector, the whole being fully wrapped in a geotextile filter fabric. We recommend that this drain be constructed with a gravity outlet. If sufficient grade does not exist on the site for a gravity outlet, then a sealed sump and pump is recommended. Under no circumstances should a 'dry well discharge' be used on this site, unless specifically sited by a Geotechnical Engineer.

The existing drainage on the site must either be maintained carefully or improved. We recommend that water be drained away from structures as rapidly as possible and not be allowed to stand or pond near the building. We recommend that water removed from one building not be directed onto the backfill

areas of adjacent buildings. We recommend that a hydrologist or drainage engineer experienced in this area be retained to complete a drainage plan for this site.

To give the building extra lateral stability and to aid in the rapidity of runoff, it is recommended that all backfill around the building and in utility trenches in the vicinity of the building be compacted to a minimum of 90% of its maximum Proctor dry density, ASTM D 698. The native soils on this site may be used for such backfill. We recommend that all backfill be compacted using mechanical methods. No water flooding techniques of any type may be used in placement of fill on this site.

Should an automatic lawn irrigation system be used on this site, we recommend that the sprinkler heads, irrigation piping and valves be installed no less than 5 feet from the building. In addition, these heads should be adjusted so that spray from the system does not fall onto the walls of the building and that such water does not excessively wet the backfill soils.

It is recommended that lawn and landscaping irrigation be reasonably limited, so as to prevent undesirable saturation of subsurface soils or backfilled areas. Several methods of irrigation water control are possible, to include, but not limited to:

* Metering the Irrigation water.
* Sizing the irrigation distribution service piping to limit on-site water usage.
* Encourage efficient landscaping practices.
* Enforcing reasonable limits on the size of high water usage landscaping for each lot and any park areas.
* Incorporating 'zeriscaping' landscaping and irrigation techniques.

FOUNDATIONS

Assuming that some amount of differential movement can be tolerated, then a conventional shallow foundation system, underlain by structural fill composed of either reworked native soils or imported granular material, placed in accordance with the recommendations contained within this report may be utilized. The foundation would probably consist of continuous narrow to moderately wide spread footings beneath all bearing walls and isolated spread footings beneath all columns and other points of concentrated load. Such a shallow foundation system, resting on the properly constructed structural fill, may be designed on the basis of an allowable bearing capacity of 1600 psf maximum. A minimum bearing of 300 psf should be maintained.

Recommendations pertaining to balancing, reinforcing, drainage, and inspection are considered extremely important and must be followed. Contact stresses beneath all continuous walls should be balanced to within + or - 200 psf at all points. Isolated interior column footings should be designed for contact stresses of about 150 psf more than the average used to balance the continuous walls. The criteria for balancing will depend somewhat on the nature of the structure. Single-story, slab-on-grade structures may be balanced on the basis of dead load only. Multi story structures may be balanced on the basis of dead load plus one half live load, for up to three stories.

If the design of the upper structure is such that loads can be balanced reasonably well or if minor amounts of differential settlement can be tolerated, a floating structural slab or raft type of foundation could be used on this site. If the slab is to be a floating structural slab, similar in appearance to the "monolithic" slab used in the Grand Junction area, the slab should be underlain by a minimum of 2 feet of structural fill, placed in accordance with recommendations contained in this report. Such a slab would require heavy reinforcing to resist differential bending. This structural slab, using the granular structural fill as part of the foundation system, could be designed assuming the top of the structural fill has a modulus of subgrade

reaction of k=250 pci. If large concentrated loads are located in the interior of this fill or if minor construction problems are encountered in the placement of the fill, the use of geosynthetic fabric or geogrid as part of the fill construction would significantly improve the performance of the fill and foundation system.

It is possible to design either the floating structural slab or the raft type of slab either as a solid or ribbed slab, but in either case a rimwall must be used for confinement. Any such slab must be specifically designed for the anticipated loading. Such a foundation system will settle to some degree as the softer, underlying soils consolidate, but differential movement is held to a minimum. Because the soils may settle in varying amounts, some minor cracking and heave are possible unless the slabs are specifically designed with the movement in mind.

Stem walls for a shallow foundation system should be designed as grade beams capable of spanning at least 12 feet. These "grade beams" should be horizontally reinforced both near the top and near the bottom. The horizontal reinforcement required should be placed continuously around the structure with no gaps or breaks. Vertical reinforcement and possibly additional horizontal reinforcement will be required for walls retaining more than 4 feet of backfill A foundation system designed in this manner should provide a rather rigid system and, therefore, be better able to tolerate differential movements associated with the slightly expansive, slightly compressible to moderately compressible subgrade soils.

STRUCTURAL FILL/SOIL IMPROVEMENT

For use in conjunction with a shallow foundation system, a structural fill is recommended to replace the upper metastable, possible slightly expansive soils. This structural fill may be placed in conjunction with structural fill beneath concrete slabs on grade. The existing metastable or slightly expansive soils should be removed to a depth of 1 foot to 2 feet below the proposed bottom footing elevation. *The excavation/fill width is to extend at least 30 to 50 inches from the interior and exterior of the proposed foundation wall or bearing pad in contact with the fill.* Once it is felt that adequate soil removal has been

achieved, it is recommended that the excavation be closely examined by a representative of Grand Junction Lincoln-DeVore to ensure that an adequate over excavation depth has indeed occurred and that the exposed soils are suitable to support the proposed structural man-made fill.

At the specific direction of the Geotechnical Engineer, it may be appropriate to extensively water soak the over-excavated portion of the site for a minimum of 1 day and possibly up to 4 days, prior to the installation of any required perimeter drain and the structural fill. The purpose of this wetting or soaking is to provide initial settlement/collapse of the subgrade soils and to allow proper subgrade. This wetting or soaking must be controlled and not allowed to adversely affect nearby structures.

After any required soaking has been accomplished, the subgrade soils are to be mechanically compacted to a minimum of 86% of the soils maximum Modified Proctor dry density (ASTM D-1557) for a depth of at least 6 inches.

Once this examination has been completed, it is recommended that a coarse-grained, non-expansive, non-free draining man-made structural fill be imported to the site and placed on the properly prepared subgrade soils. Non-Expansive, Native soils may be utilized as structural fill, if specifically approved by the Geotechnical Engineer. The upper 6" to 12"(minimum) of the fill is to be a sandy gravel (minus 3/4" & GM/GW) or a gravelly sand (minus 3/4" & SM/SW). The structural fill should be placed in the overexcavated portion of this site in lifts not to exceed 6 inches after compaction. A minimum of 90% of the soils maximum Modified Proctor dry density (ASTM D-1557) must be maintained during the soil placement. These soils should be placed at a moisture content conducive to the required compaction (usually Proctor optimum moisture content $\pm$ 2%).

Very low expansive to non-expansive, native soils may be utilized as structural fill, if specifically approved by the Geotechnical Engineer. If these native soils have a slight expansive potential, the soils should be placed as structural fill in lifts not to exceed 6 inches after compaction. These soils must not be over compacted but, compacted wet of the soils 'optimum' moisture content. These soils should be

placed at a minimum of 86% and a maximum of 92% of the soils maximum modified proctor dry density, ASTM D-1557. These soils must be placed at a moisture content conducive to the required compaction while being wet of the 'optimum' moisture content. These soils must be placed at 'optimum' moisture content or up to 4% over 'optimum' moisture content.

The granular material must be brought to the required density by mechanical means. No soaking, jetting or puddling techniques of any type should be used in placement of fill on this site. To confirm the quality of the compacted fill product, it is recommended that surface density tests be taken at maximum 2 foot vertical intervals.

It is recommended that any required perimeter drain be placed in the exterior portion of the structural fill, at the base of the fill, in order to prevent or at least minimize the collection of water in the soils and fill beneath the structure.

SETTLEMENT

We anticipate that total and/or differential settlements or heaves for the proposed structures may be considered to be within tolerable limits, provided the recommendations presented in this report are fully complied with. In general, we expect total settlements for the proposed residential structures to be less than 1 inch and total heaves to be less than ½ inch. It must be noted that part of the structure may undergo settlement and part may undergo heave.

FROST PROTECTION

We recommend that the bottom of all foundation components rest a minimum of 1-1/2 feet below finished grade or as required by the local building codes. Foundation components must not be placed on frozen soils.

Structural slab-on-grade (Monolithic) foundation systems typically have an effective soil cover of less than 12 inches. Under normal use, the building and foundation system radiates sufficient heat that frost heave from the underlying soils is not normally a problem. However, additional protection can be provided by applying an insulation board to the exterior of the foundation and extending this board to approximately 18 inches below the final ground surface grade. This board may be applied either prior to or after the concrete is cast and it is very important that all areas of soil backfill be compacted. Local building officials should be consulted for regulatory frost protection depths.

SEISMIC DATA

Utilizing the criteria of the 2000 International Building Code, Section 1615 and our interpretation of figures 1615(1) and 1615(2), Structures in Grand Junction, Colorado should be designed with **Special Response Acceleration factors, S_s=0.35 & S_1 = 0.08.** Based upon our analysis of the soils which are expected to be present beneath the building foundations, the **Site Classification is E**. These values can be used to determine the **Values of Site Coefficient, F_a & F_v** from Tables 1615.1.2(1) & 1615.1.1(2), to calculate **Sms, Sm_1, Sps & SP1** and to determine the **Seismic Design Categories** from Tables 1616.3(1) and 1616.3(2).

CONCRETE SLABS ON GRADE

Slabs could be placed directly on the natural soils or on a structural fill. We recommend the subgrade soil surface be slightly moistened and 'proof rolled' immediately prior to concrete placement.

Due to the potential for differential collapse/settlement and heave beneath slabs on grade, we strongly recommend that slabs on grade be placed on structural fill constructed in according to recommendations contained in this report in the Foundation Section.

We recommend that all on-grade slabs be isolated from other structural portions of the building. This is generally accomplished by an expansion joint at the slab-foundation wall interface. If a vapor barrier is desired beneath slabs, we recommend that it be overlain by at least 2 inches of sand to decrease the likelihood of curing problems. An alternate method of reducing finishing problems would be to place the vapor barrier beneath approximately 6 inches of a minus 3/4 inch gravel fill. This method must be very carefully accomplished to minimize excessive puncturing and tearing of the vapor barrier.

If a full basement is anticipated beneath this site, if poor surface drainage is anticipated at the end of construction or if water seepage is encountered in the foundation excavation, it is recommended that slabs on grade be constructed over a capillary break of approximately 6 inches in thickness. We recommend that the material used to form the capillary break be free draining, granular material and not contain significant fines. A free draining outlet is also recommended for this break so that it will not trap water beneath the slab. A vapor barrier is recommended beneath the floor slab and above the capillary break. To prevent difficulty in finishing concrete, a 2 inch sand layer should be placed above the break. An alternate method of reducing finishing problems would be to place the vapor barrier beneath approximately 6 inches of a minus 3/4 inch gravel fill. This method must be very carefully accomplished to minimize excessive puncturing and tearing of the vapor barrier.

It is recommended that floor slabs on grade be constructed with control joints placed to divide the floor into sections. Slab sections of up to 256 sq. ft. are successfully placed, using appropriate concrete mixes and placement techniques common to good workmanship in this area. Unless specifically designed, control joints should be placed no more than 16 feet on center in each direction. In the case of expansive subgrade soils, additional joints should be placed at columns and at inside corners. *In the case of expansive subgrade soils, we further recommend additional joints placed 2 to 3 ½ feet off and parallel to foundation wall.* Also, additional control joints are recommended at all inside corners and at all columns to control cracking in these areas.

Problems associated with slab 'curling' are usually minimized by a 'low shrinkage' concrete mix design, placing distributed reinforcing steel in the slab and proper curing of the placed concrete slab. This period of curing usually is most critical within the first 5 days after placement. Proper curing can be accomplished by minimizing moisture loss at the top slab surface. This may be accomplished utilizing continuous water application to the concrete surface or, in some instances by the placement of a 'heavy' curing compound, formulated to minimize water evaporation from the concrete. Curing by continuous water application must be carefully undertaken to prevent the wetting or saturation of the subgrade soils.

EARTH RETAINING STRUCTURES

The active soil pressure for the design of earth retaining structures may be based on an equivalent fluid pressure of 48 pounds per cubic foot. The active pressure should be used for retaining structures which are free to move at the top (unrestrained walls). For earth retaining structures which are fixed at the top, such as basement walls, an equivalent fluid pressure of 60 pounds per cubic foot may be used. It should be noted that the above values should be modified to take into account any surcharge loads, sloping backfill or other externally applied forces. The above equivalent fluid pressures should also be modified for the effect of free water, if any.

The passive pressure for resistance to lateral movement may be considered to be 230 pcf per foot of depth. The coefficient of friction for concrete to soil may be assumed to be 0.27 for resistance to lateral movement. When combining frictional and passive resistance, the latter must be reduced by approximately 1/3.

Drainage behind retaining walls is considered critical. If the backfill behind the wall is not well drained, hydrostatic pressures are allowed to build up and lateral earth pressures will be considerably increased. Therefore, we recommend a vertical drain be installed behind any impermeable retaining walls. Because of the difficulty in placement of a gravel drain, we recommend the use of a composite drainage mat similar to Exxon Battledrain or Tensar MD Series NS-1100. An outfall must be provided for this drain.

REACTIVE SOILS

Since groundwater in the Grand Junction area typically contains sulfates in quantities detrimental to a Type I cement, a Type II or Type I-II or Type II-V cement is recommended for all concrete which is in contact with the subsurface soils and bedrock. Calcium chloride should not be added to a Type II, Type I-II or Type II-V cement under any circumstances.

PAVEMENTS

Samples of the surficial native soils that may be required to support pavements have been evaluated using the Hveem-Carmany method (ASTM D-2844) to determine their support characteristics. The results of the laboratory testing are as follows:

AASHTO Classification - A-4(7) Unified Classification - CL-ML

Soil Type # I, Silty Clay

R	= 8
Expansion @ 300 psi	= 18.9 psf
Displacement @ 300 psi	= 4.85

Displacement values higher than 4.00 generally indicate the soil is unstable and may require confinement for proper performance.

Traffic Counts or anticipated volumes have not been provided to Grand Junction Lincoln DeVore. Based upon our understanding of the project, we believe the majority of street length will be relatively low traffic volume residential in nature. It is anticipated that Cortland Avenue, and possibly Ridge Drive, will experience elevated traffic flows. A previous study and computation for Cortland Avenue prepared by Grand Junction Lincoln DeVore, Job # 87311-GJ, 4-20-99 indicates that a design ADT = 3000. Utilizing this design ADT and for purposes of this analysis, Cortland Avenue is assumed to eventually be a 4 laned road way and therefore, an 18K EAL (EDLA) of 16.2 was utilized.

Two methods of design were utilized for this project. First, the 1986 AASHTO procedure, recognized by the Colorado Department of Transportation and second, The Asphalt Institute (MS-1). A design life of 30 years was used, with an annual growth rate of 3%.

Based upon the existing topography, the anticipated final road grades and subsurface soils conditions encountered during the drilling program, a Drainage Factor of 0.8 (1986 AASHTO procedure) and a mean average annual air temperature (MAAT) of 60° Fahrenheit (Asphalt Institute Method) has been utilized for the section analysis.

Calculated Pavement Sections

PAVEMENT SECTIONS

18k EAL = 5:	**18k EAL = 16.2:**
3" or 4" asphaltic concrete, AC	3" or 4" AC
on 9" or 6" of aggregate base course, ABC	on 18" or 13" ABC
on 10" of compacted subgrade	on 10" Subgrade

Utilizing the Asphalt Institute method of calculations, approximately 1 to 2 inches less of aggregate base course was required. Due to our experience in this area and the inability to readily incorporate long term subgrade soil drainage conditions into the design of the Asphalt Institute method, we strongly recommend the AASHTO method be utilized for design purposes.

SUBGRADE IMPROVEMENT, MECHANICALLY STABILIZED FILL

Due to the possibility of very high soil moisture in the subgrade soils n part or all of this site, the use of a Geotextile Fabric for separation and minor reinforcement placed beneath the Structural Section, may be required. It is recommended a woven fabric, such as Amoco 2002 or Contech C-180 or Mirafi 500-X, be utilized unless free water is present in the excavation. If free water is present, the non-woven fabric, such as Amoco 4547, Contech C-50NW or Mirafi 140N, while possessing lower strength generally

provides better constructability. If required, Equivalent Reinforcement Strength can be obtained by using Amoco 4552 or Contech C-70NW or Mirafi 180N.

The additional materials and effort expended in subgrade stabilization is to provide a construction platform, so the actual Road Section can be placed and compacted. The specific areas which will require placement of the Geotextile Fabric will depend on the actual conditions encountered during construction. The subgrade and road section construction should be monitored by representatives of the Geotechnical Engineer.

Geotextile Fabric for separation and minor reinforcement should be either a woven with a minimum Grab Strength of 180 lb., in the weakest direction (such as Amoco 2002 or Contech C-180 or Mirafi 500-X). If free water is encountered, Equivalent Reinforcement Strength (minimum Grab Strength of 180 lb., in the weakest direction) can be obtained by using Amoco 4552 or Contech C-70NW or Mirafi 180N may be used for better constructability. In instances requiring only separation properties, a non-woven/needle punched Geotextile with a minimum Grab Strength of 120 lbs., in the weakest direction (such as Amoco 4506, Contech C-50NW or Mirafi 140N) may be utilized, even though it is a weaker fabric.

The imported structural Fill (Hveem-Carmany R>70 , swell not critical) is to be Granular, Medium to Coarse Grained, Very low plastic (PI<4), Non Freedraining, Compactable and within the following Gradation:

Maximum size, by screening	8"
Passing the #4 screen	20% - 85%
Passing the #40 screen	10% - 60%
Passing the #200 screen	3% - 15%

The maximum aggregates size may be exceeded if the contractor can provide evidence of proper compaction of the matrix material while avoiding excessive particle size segregation of the fill material or avoiding excessive overworking of the subgrade soils.

Imported Structural Fill and Aggregate Base Course (ABC) to be compacted to 90% of its maximum Modified Proctor dry density (ASTM-D-1557) at a moisture content within $\pm$ 2% of optimum moisture. The use of light weight tracked equipment will minimize subgrade degradation, vibratory compaction equipment is not recommended.

During the placement of any structural fill, it is recommended that a sufficient amount of field tests and observation be performed under the direction of the Geotechnical Engineer. The Geotechnical Engineer should determine the amount of observation time and field density tests required to determine substantial conformance with these recommendations.

Any areas of Fill or Subgrade instability encountered during construction are to be immediately brought to the attention of the Geotechnical Engineer, so recommendations for stabilization can be given.

The Subgrade Stabilization is normally considered effective if the imported structural fill materials are confined, if specified imported fill and specified asphalt densities are obtained and the final traffic surface is stable according to local practices. Some 'pumping and rolling' of the finish Base Course (ABC) surface is anticipated but, rutting should not occur.

PAVEMENT SECTION CONSTRUCTION

FLEXIBLE PAVEMENT

We recommend that the asphaltic concrete pavement meet the State of Colorado requirements for a Grade C mix. In addition, the asphaltic concrete pavement should be compacted to a minimum of 95% of its maximum Hveem density. The aggregate base coarse should meet the requirements of State of Colorado Class 5 or Class 6 material, and have a minimum R value of 78. We recommend that the base coarse be compacted to a minimum of 95% of its maximum Modified Proctor dry density (ASTM D-1557), at a moisture content within + or -2% of optimum moisture. The native subgrade shall be scarified

and recompacted to a minimum of 90% of their maximum Modified Proctor day density (ASTM D-1557) at a moisture content within + or -2% of optimum moisture.

All pavement should be protected from moisture migrating beneath the pavement structure. If surface drainage is allowed to pond behind curbs, islands or other areas of the site and allowed to seep beneath pavement, premature deterioration or possibly pavement failure could result.

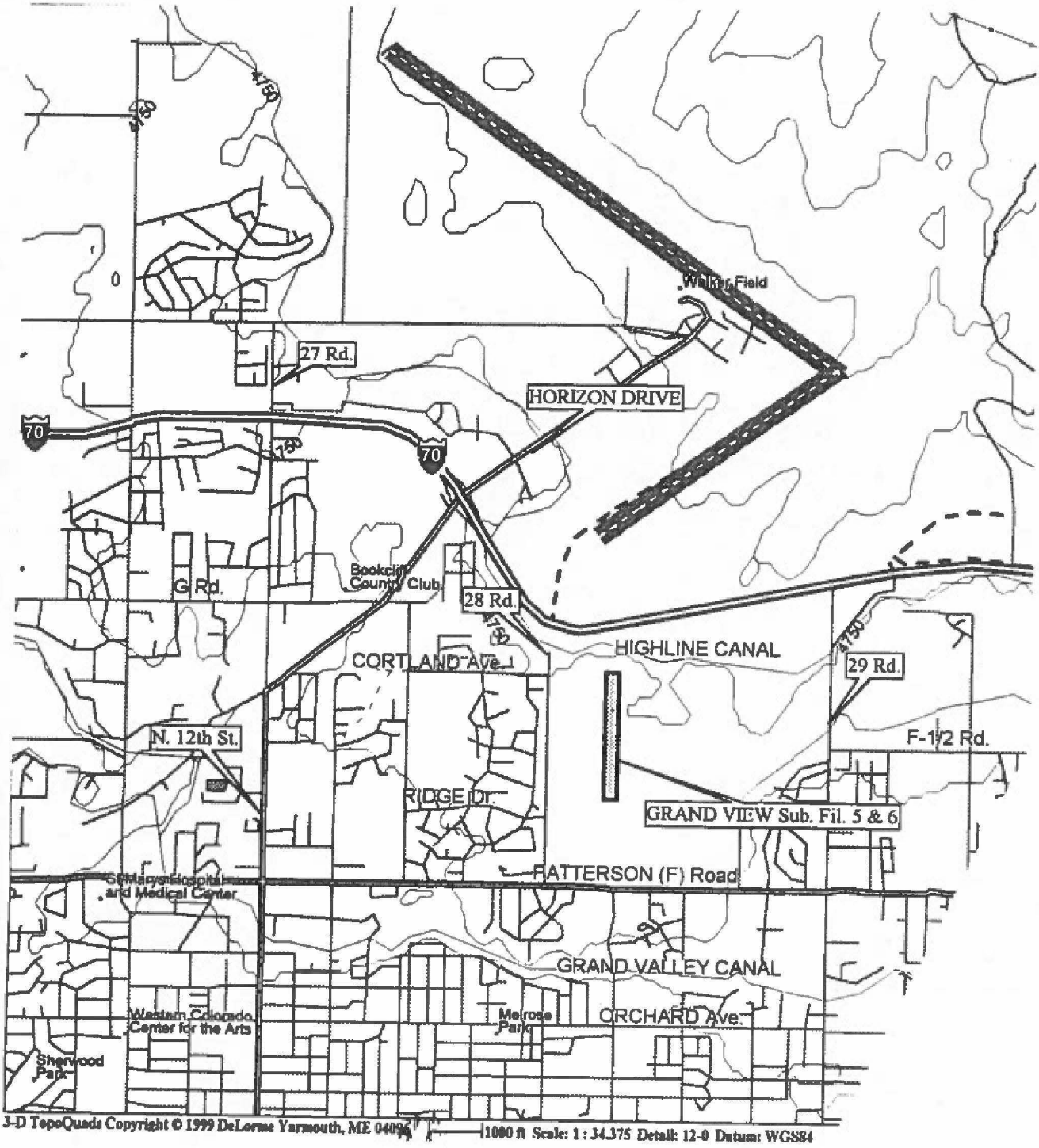
LIMITATIONS

This report is issued with the understanding that it is the responsibility of the owner, or his representative to ensure that the information and recommendations contained herein are brought to the attention of the individual lot purchasers for the subdivision. In addition, it is the responsibility of the individual lot owners that the information and recommendations contained herein are brought to the attention of the architect and engineer for the individual projects and the necessary steps are taken to see that the contractor and his subcontractors carry out the appropriate recommendations during construction.

The findings of this report are valid as of the present date. However, changes in the conditions of a property can occur with the passage of time, whether they be due to natural processes or the works of man on this or adjacent properties. In addition, changes in acceptable or appropriate standards may occur or may result from legislation or the broadening of engineering knowledge. Accordingly, the findings of this report may be invalid, wholly or partially, by changes outside our control. Therefore, this report is subject to review and should not be relied upon after a period of 3 years.

The recommendations of this report pertain only to the site investigated and are based on the assumption that the soil conditions do not deviate from those described in this report. If any variations or undesirable conditions are encountered during construction or the proposed construction will differ from that planned on the day of this report, Grand Junction Lincoln DeVore should be notified so that supplemental recommendations can be provided, if appropriate.

Grand Junction Lincoln DeVore makes no warranty, either expressed or implied, as to the findings, recommendations, specifications or professional advice, except that they were prepared in accordance with generally accepted professional engineering practice in the field of geotechnical engineering.



SITE LOCATION DIAGRAM

GRAND JUNCTION LINCOLN - DeVORE, Inc. Geotechnical Consultants Grand Junction, Colorado	GRAND VIEW SUBDIVISION, Filings 5 & 6 GRAND JUNCTION, COLORADO	
	DONADA Grand Junction, Colorado	Date 2-26-2001
	Job No. 88484-GJ / Drawn EMM	

SOILS DESCRIPTIONS

SYMBOL	USCS	DESCRIPTION
		Topsoil - Organic
		Man-Made Fill
	GW	Gravel Well-Graded
	GP	Gravel Poorly-Graded
	GM	Silty Gravel
	GC	Clayey Gravel
	SW	Sand Well-Graded
	SP	Sand Poorly-Graded
	SM	Silty Sand
	SC	Clayey Sand
	ML	Silt Low-Plastic
	CL	Silty Clay Low-Plastic
	OL	Organic Silt & Clay Low-Plastic
	MH	Silt High-Plastic
	CH	Clay High-Plastic
	OH	Organic Clay High-Plastic
	Pt	Peat
	GW/GM	Silty Gravel Well-Graded
	GW/GC	Clayey Gravel Well-Graded
	GP/GM	Silty Gravel Poorly-Graded
	GP/GC	Clayey Gravel Poorly-Graded
	GM/GC	Silty Clayey Gravel
	SW/SM	Silty Sand Well-Graded
	SW/SC	Clayey Sand Well-Graded
	SP/SM	Silty Sand Poorly-Graded
	SP/SC	Clayey Sand Poorly-Graded
	SM/SC	Silty Clayey Sand
	CL/ML	Silty Clay-Clayey Silt Low-Plastic

ROCK DESCRIPTIONS

SYMBOL	DESCRIPTION
	Sedimentary Rocks
	CONGLOMERATE
	SANDSTONE
	SILTSTONE
	SHALE
	CLAYSTONE
	MUDSTONE
	COAL
	LIMESTONE
	DOLOMITE
	MARLSTONE
	GYPSUM
	Other Sedimentary Rocks
	Igneous Rocks
	GRANITIC ROCKS
	DIORITIC ROCKS
	GABBRO
	BASALT
	RHYOLITE
	TUFF & ASH FLOWS
	BRECCIA & Other Volcanics
	Other Igneous Rocks
	Metamorphic Rocks
	GNEISS
	SCHIST
	PHYLLITE
	HORNFELS
	METAQUARTZITE
	MARBLE
	Other Metamorphic Rocks

SYMBOLS & NOTES

SYMBOL	DESCRIPTION
SPT 09/12	Standard Penetration Drive ASTM D-1586 Disturbed Sample Numbers indicate 9 Blows To drive the Spoon 12" into ground.
CS 09/12	'California Lined Sampler' Modified Penetration Drive ASTM D- Disturbed Sample Numbers indicate 9 Blows To drive the Spoon 12" into ground.
D&M 09/12	'Dames & Moore Lined Sampler' Modified Penetration Drive ASTM D- Disturbed Sample Numbers indicate 9 Blows To drive the Spoon 12" into ground.
ST	Thin-Walled 'Shelby' Tube ASTM D-1586 - 2.625"od 2.5" id 'Relatively Undisturbed Sample'
BULK	Disturbed, Bulk Sample ASTM D- Disturbed Sample
	Free Water Table
Wx	Weathered Rock Formation
	Test Boring Location
	Test Pit Location
	Seismic or Resistivity Station

Standard Penetration Drives are made by driving a standard 2" od, 1-5/8" id Split Spoon Sampler into the ground by dropping a 140 lb. weight 30".
No Thinwall Shoe Extension and the Sample is Disturbed

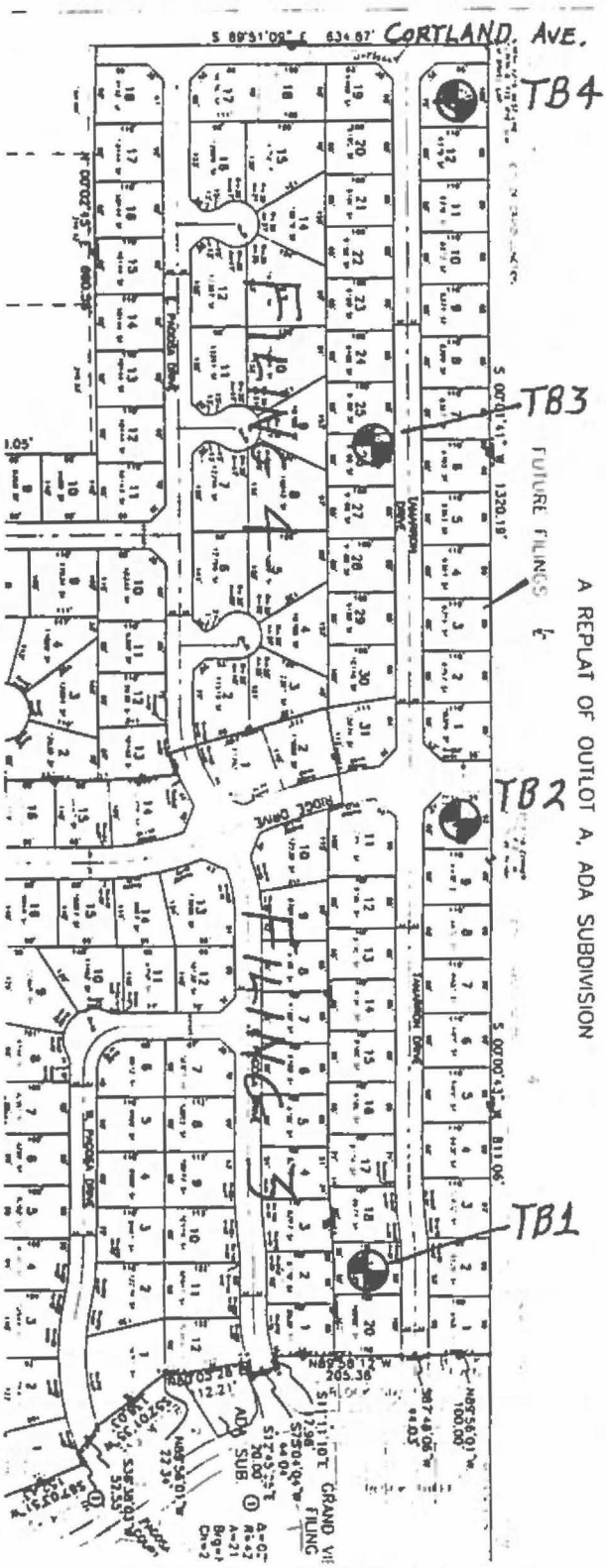
Modified Penetration Drives are made by driving a 2-1/2" od, 1.875" id California Spoon Sampler or a 3" od, 2-3/8" id California Spoon Sampler into the ground by dropping a 140 lb. weight 30".
No Thinwall Shoe Extension and the Sample is Disturbed

The Boring Logs show subsurface conditions at the dates and locations shown, and it is not warrented that they are representative of subsurface conditions at times and other locations.

GRAND JUNCTION
LINCOLN - DeVORE, Inc.
Geotechnical Consultants
Grand Junction, Colorado

EXPLANATION OF BOREHOLE LOGS AND LOCATION DIAGRAMS

Form No.	Drawn	Date
GJLDFORM-EXPL	EMM	10-15-98



BORING LOCATION DIAGRAM

GRAND JUNCTION LINCOLN - DeVORE, Inc. Geotechnical Consultants Grand Junction, Colorado	GRAND VIEW SUBDIVISION, Filings 5 & 6 GRAND JUNCTION, COLORADO	
	DONADA Grand Junction, Colorado	Date 2-26-2001
	Job No. 88484-GJ	Drawn EMM

BORING NO. 1 DRILL: GJLD CME-45B

Southwest Portion of Filing #5

BORING ELEVATION: AUGER/TOOLS: 4" od, SOLID

DEPTH (FT.)	SOIL LOG	DESCRIPTION		BLOW COUNT /inch	SOIL DENSITY pcf	WATER %
		SURFACE SOILS REWORKED by PREVIOUS AGRICULTURE				
		DRY				
		METASTABLE STRATA H. SULFATES				
	CL-ML	SILTY CLAY STRATIFIED	ST		98.0	10.3%
5	I	SI. EXPANSIVE SI. MOIST	5	4/6		
		ALLUVIAL/DEBRIS FAN DEPOSITS	SPT	4/6		10.7%
				4/6		
		LOW to MEDIUM DENSITY				
	CL	LEAN CLAY INCREASING MOISTURE MOIST	ST		96.3	17.0%
10	II	COMPRESSIBLE SOFT to DRILL	10		99.1	23.8%
		WET				
		INCREASING SANDY				
		STRATIFIED				
		FREE WATER ▽ SATURATED	SPT	3/6		25.8%
15	CL-ML	SILTY CLAY SANDY	15	2/6		
				3/6		
		ALLUVIAL/DEBRIS FAN DEPOSITS				
		'FLOWING' SANDS @ 18'				
20		HOLE SQUEEZED SHUT	20			
		V. SOFT to DRILL				
	Wx Km,	MANCOS SHALE V. WEATHERED				
	CL	EXPANSIVE STIFF to DRILL H. SULFATES				
25	III	LOW to MEDIUM DENSITY	25			
		INCREASING DENSITY w/DEPTH				
		TD @ 25'				
30			30			
35			35			

Blow Counts are counted for each 6 inches of sampler penetration.

Free Water @ 13.5'

During Drilling 2-7-2001

LOG OF SUBSURFACE EXPLORATION

GRAND JUNCTION
LINCOLN - DeVORE, Inc.
Geotechnical Consultants
Grand Junction, Colorado

GRAND VIEW SUBDIVISION, Filings 5 & 6
GRAND JUNCTION, COLORADO

DONADA
Grand Junction, Colorado

Date 2-26-2001

Job No. 88484-GJ

Drawn EMM

BORING NO. 2 DRILL: GJLD CME-45B

Northeast Corner of Filing #5

BORING ELEVATION: AUGER/TOOLS: 4" od, SOLID

DEPTH (FT.)	SOIL LOG	DESCRIPTION			BLOW COUNT /inch	SOIL DENSITY pcf	WATER %
		SURFACE SOILS REWORKED by PREVIOUS AGRICULTURE					
		DESSICATED					
		STRATIFIED	DRY				
	CL-ML	SILTY CLAY	METASTABLE STRATA	H. SULFATES	ST		93.6	6.5%
5	I	SI. EXPANSIVE			5	4/6	94.0	7.8%
				SI. MOIST	SPT	5/6		7.4%
		ALLUVIAL/DEBRIS FAN DEPOSITS				6/6		
		LOW to MEDIUM DENSITY						
	CL	LEAN CLAY		V. MOIST	SPT	2/6		20.6%
10	II	COMPRESSIBLE			10	4/6		
		SOFT to DRILL				5/6		
	CL	LEAN CLAY			ST		96.6	20.2%
15	II	COMPRESSIBLE			15			
	FREE WATER ▽	SANDY	STRATIFIED					
		'FLOWING' SANDS @ 18'						
		ALLUVIAL/DEBRIS FAN DEPOSITS						
20					20			
		V. SOFT to DRILL						
		HOLE SQUEEZED SHUT						
25					25			
	Wx Km,	MANCOS SHALE						
	CL	LEAN CLAY	STIFF to DRILL					
	III	EXPANSIVE						
30		INCREASING DENSITY w/DEPTH			30			
		TD @ 28'						
35					35			

Blow Counts are counted for each 6 inches of sampler penetration.

Free Water @ 15'

During Drilling 2-7-2001

LOG OF SUBSURFACE EXPLORATION

GRAND JUNCTION
LINCOLN - DeVORE, Inc.
Geotechnical Consultants
Grand Junction, Colorado

GRAND VIEW SUBDIVISION, Filings 5 & 6
GRAND JUNCTION, COLORADO

DONADA
Grand Junction, Colorado

Date 2-26-2001

Job No. 88484-GJ

Drawn EMM

BORING NO. 3 DRILL: GJLD CME-45B

Southwest Portion of Filing #6

BORING ELEVATION: AUGER/TOOLS: 4" od, SOLID

DEPTH (FT.)	SOIL LOG	DESCRIPTION			BLOW COUNT /inch	SOIL DENSITY pcf	WATER %
		LOW to MEDIUM DENSITY	DESSICATED				
		SURFACE SOILS REWORKED by PREVIOUS AGRICULTURE					
	CL-ML	SILTY CLAY	H. SULFATES				
	I	SI. EXPANSIVE	METASTABLE STRATA	DRY ST		94.3	4.9%
5	CL	LEAN CLAY STRATA		5	6/6		
	II	COMPRESSIBLE	SI. MOIST	SPT	5/6		6.2%
		ALLUVIAL/DEBRIS FAN DEPOSITS			5/6		
		SANDY STRATA					
			SI. MOIST	SPT	3/6		14.9%
10		INCREASING SANDY		10	2/6		
		SOFT to DRILL			2/6		
	Wx Km,	MANCOS SHALE	H. SULFATES				
	CL	LEAN CLAY METASTABLE STRATA	SI. MOIST	ST		100.3	14.8%
15	III	EXPANSIVE LOW PLASTIC	H. SULFATES	15		108.7	17.7%
		INCREASING DENSITY w/DEPTH					
20		TD @ 16'		20			
25				25			
30				30			
35				35			

Blow Counts are counted for each 6 inches of sampler penetration.

NO Free Water During Drilling 2-7-2001

LOG OF SUBSURFACE EXPLORATION

GRAND JUNCTION LINCOLN - DeVORE, Inc.
Geotechnical Consultants
Grand Junction, Colorado

GRAND VIEW SUBDIVISION, Filings 5 & 6
GRAND JUNCTION, COLORADO

DONADA
Grand Junction, Colorado

Date 2-26-2001

Job No. 88484-GJ

Drawn EMM

BORING NO. 4 DRILL: GJLD CME-45B

Northeast Corner of Filing #6

BORING ELEVATION: AUGER/TOOLS: 4" od, SOLID

DEPTH (FT.)	SOIL LOG	DESCRIPTION					BLOW COUNT /inch	SOIL DENSITY pcf	WATER %
		SURFACE SOILS REWORKED by PREVIOUS AGRICULTURE							
		CL-ML	SILTY CLAY	METASTABLE STRATA		DESSICATED			
		II							
		CL	LEAN CLAY			H. SULFATES	ST	93.4	5.7%
5		I	SI. EXPANSIVE	STRATIFIED		SI. MOIST	5	5/6 93.6	11.1%
		CL-ML	SILTY CLAY				SPT	6/6	5.4%
		II	SI. EXPANSIVE	METASTABLE STRATA				5/6	
				COMPRESSIBLE STRATA					
		CL-ML	SILTY CLAY			SI. MOIST	ST	100.4	8.6%
10		II	SI. EXPANSIVE			H. SULFATES	10		
				ALLUVIAL/DEBRIS FAN DEPOSITS					
				IINCREASING MOISTURE		V. MOIST			
				SOFT to DRILL					
		CL-ML	SILTY CLAY			WET	SPT	3/6	20.0%
15		FREE WATER		INCREASING SANDY			15	2/6	
								2/6	
		CL	LEAN CLAY	SOFT to DRILL					
		I	COMPRESSIBLE	STRATIFIED			ST	97.3	26.3%
20		CL-ML	SILTY CLAY				20		
		II	COMPRESSIBLE						
				ALLUVIAL/DEBRIS FAN DEPOSITS					
				V. SOFT to DRILL					
25							25		
		CL-ML	SILTY CLAY	HOLE SQUEEZED SHUT					
		II	COMPRESSIBLE						
				V. SOFT to DRILL					
30							30		
		Wx Km,	MANCOS SHALE	SOFT		H. SULFATES			
		CL	EXPANSIVE	LEAN CLAY					
		III		INCREASING DENSITY w/DEPTH					
35				Blow Counts are counted for each			35		
			TD @ 33'	6 inches of sampler penetration.					
				Free Water @ 14'					
				During Drilling 2-7-2001					

LOG OF SUBSURFACE EXPLORATION

GRAND JUNCTION
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Geotechnical Consultants
Grand Junction, Colorado

GRAND VIEW SUBDIVISION, Filings 5 & 6
GRAND JUNCTION, COLORADO

DONADA
Grand Junction, Colorado

Date 2-26-2001

Job No. 88484-GJ

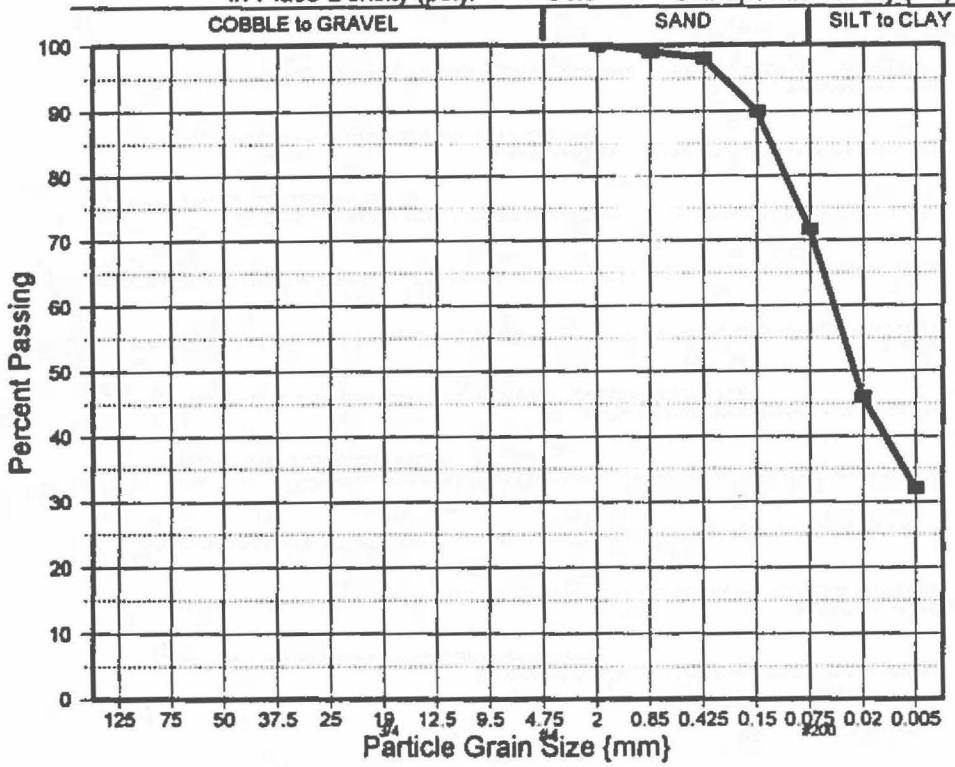
Drawn EMM

Soil Sample: SILTY CLAY (CL-ML) Sample No.: 1 (Typical)

Geologic Origin: ALLUVIAL/DEBRIS FAN DEPOSITS Test by: LRS

Natural Water Content (w): 7.8% Boring No.: 2 Depth: 3'

In-Place Density (pcf): 94.0 Soil Specific Gravity (Gs):



Effective size mm

Cu

Cc

Plastic Limit (PL) 19%

Liquid Limit (LL) 23%

Plasticity Index (PI) 4%

Shrinkage Limit (SL)

Shrinkage Ratio

DIRECT SHEAR: CD

Ult. Res.

Shear Angle: deg.

Tan Shear:

Cohesion: psf

Sieve	(mm)	% Passing
5"	125	
3"	75	
2"	50	
1-1/2"	37.5	
1"	25	
3/4"	19	
1/2"	12.5	
3/8"	9.5	
# 4	4.75	
#10	2	100
#20	0.85	99
#40	0.425	98
#100	0.15	90
#200	0.075	71.7
	0.02	46
	0.005	32

Maximum Size Allowed By Sampler 2-1/2"

MOISTURE / DENSITY RELATIONSHIP:

ASTM Method: D-698 A D 4718 - 30% Correction

Max. Dry Density : pcf pcf

Optimum Moisture :

HVEEM-CARMANY: **FHA Soil Swell:**

'R' Value @ 300 psi: 8 % Swell

Displacement 300 psi: 4.85 psf

Expansion @ 300 psi: 18.9 psf Remolded Sample

ALLOWABLE BEARING (net): 1800 psf by Consolidometer

Standard Penetration (SPT): 2100 psf by Penetrometer

Unconfined Compression (qu): psf

CONSTANT VOLUME SWELL: 660 psf

COLLAPSE OF 0.70% **DURING SWELL PHASE**

CONSOLIDATION: 1.33% @ 1025 psf

CONSOLIDATION: 2.58% @ 2050 psf

SULFATE SALTS: 10,000 ppm

PERMEABILITY:

K (20 C) Remolded cm/sec @ pcf

SOIL ANALYSIS and SUMMARY

GRAND JUNCTION
LINCOLN - DeVORE, Inc.
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Grand Junction, Colorado

GRAND VIEW SUBDIVISION, Filings 5 & 6
GRAND JUNCTION, COLORADO

DONADA
Grand Junction, Colorado

Date: 2-26-2001

Job No.: 88484-GJ

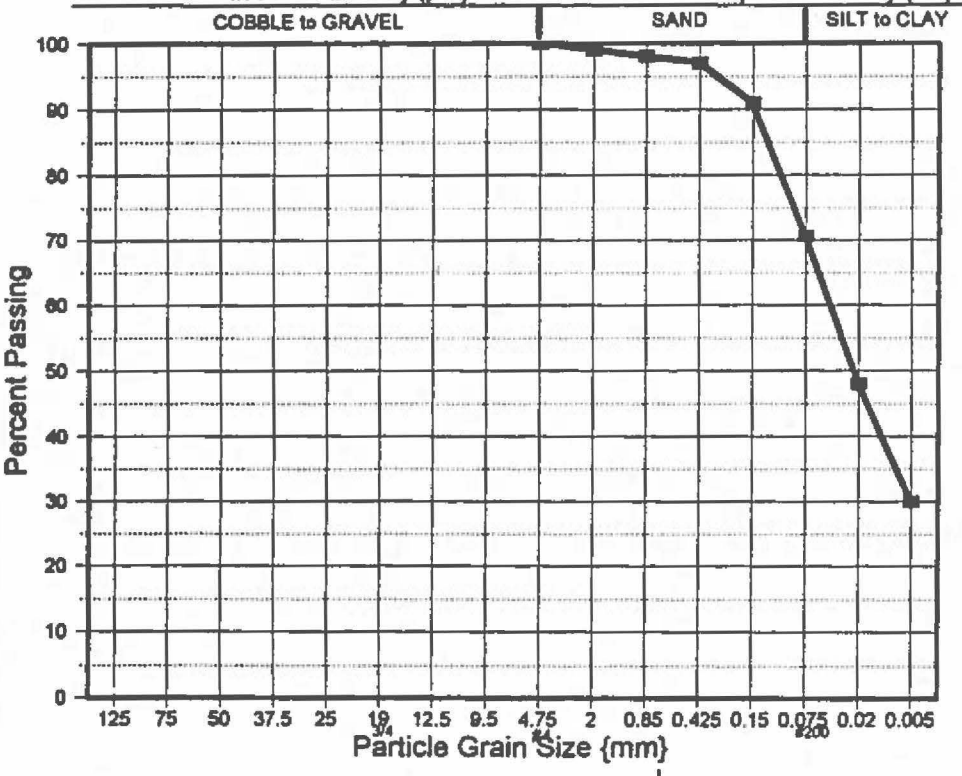
Drawn: EMM

Soil Sample: LEAN CLAY (CL) Sample No.: II (Typical)

Geologic Origin: ALLUVIAL/DEBRIS FAN DEPOSITS Test by: LRS

Natural Water Content (w): 23.8% Boring No.: 1 Depth: 8'

In-Place Density (pcf): 99.1 Soil Specific Gravity (Gs):



Effective size mm

Cu

Cc

Plastic Limit (PL) 20%

Liquid Limit (LL) 30%

Plasticity Index (PI) 10%

Shrinkage Limit (SL)

Shrinkage Ratio

DIRECT SHEAR: CD

Ult. Res.

Shear Angle: deg.

Tan Shear:

Cohesion: psf

Sieve	(mm)	% Passing
5"	125	
3"	75	
2"	50	
1-1/2"	37.5	
1"	25	
3/4"	19	
1/2"	12.5	
3/8"	9.5	
#4	4.75	100
#10	2	99
#20	0.85	98
#40	0.425	97
#100	0.15	91
#200	0.075	70.7
	0.02	48
	0.005	30

Maximum Size Allowed By Sampler 2-1/2"

MOISTURE / DENSITY RELATIONSHIP:

ASTM Method: D-698 A D 4718 - 30% Correction

Max. Dry Density : pcf pcf

Optimum Moisture :

HVEEM-CARMANY: **FHA Soil Swell:**

'R' Value @ 300 psi: % Swell

Displacement 300 psi: psf

Expansion @ 300 psi: psf Remolded Sample

ALLOWABLE BEARING (net): 1100 psf by Consolidometer

Standard Penetration (SPT): 1000 psf by Penetrometer

Unconfined Compression (qu): psf

COLLAPSE @ Wetting 0.00% @ 1025 psf

CONSOLIDATION: 2.14% @ 1025 psf

CONSOLIDATION: 3.19% @ 2050 psf

SULFATE SALTS: 2000 ppm

PERMEABILITY:

K (20 C) Remolded cm/sec @ pcf

SOIL ANALYSIS and SUMMARY

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LINCOLN - DeVORE, Inc.
Geotechnical Consultants
Grand Junction, Colorado

GRAND VIEW SUBDIVISION, Filings 5 & 6
GRAND JUNCTION, COLORADO

DONADA
Grand Junction, Colorado

Date: 2-26-2001

Job No.: 88484-GJ

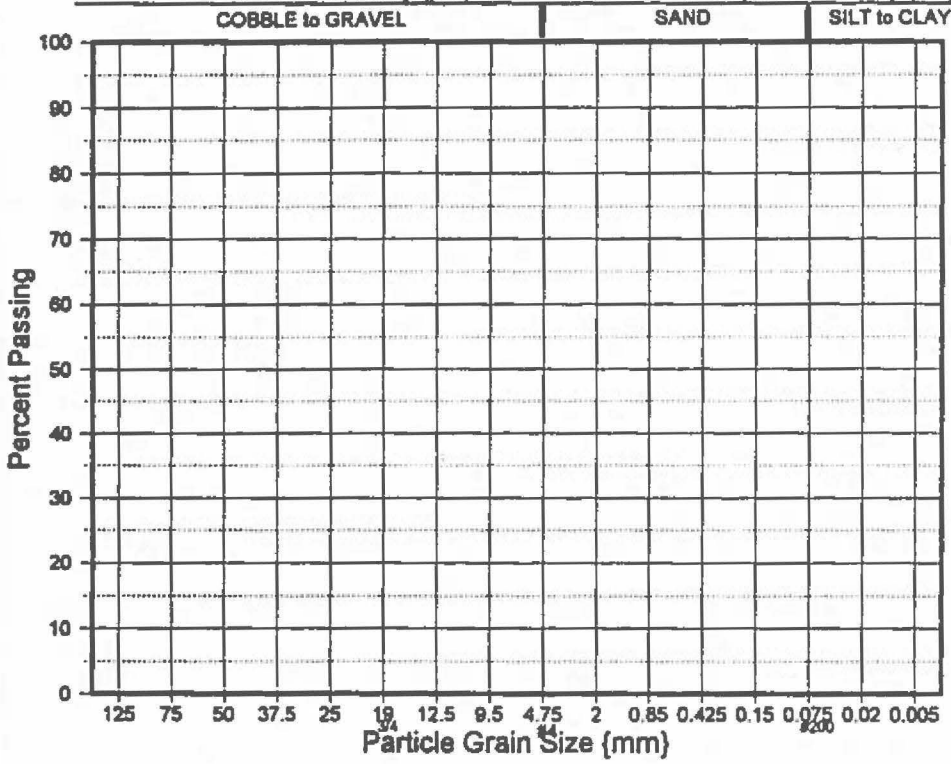
Drawn: EMM

Soil Sample: **LEAN CLAY (CL)** Sample No.: III (Typical)

Geologic Origin: **Weathered MANCOS SHALE (Km) High Sulfates** Test by: LRS

Natural Water Content (w): **17.7%** Boring No.: 3 Depth: 13'

In-Place Density (pcf): **108.7** Soil Specific Gravity (Gs):



Effective size mm

Cu

Cc

Plastic Limit (PL) 20%

Liquid Limit (LL) 29%

Plasticity Index (PI) 9%

Shrinkage Limit (SL)

Shrinkage Ratio

DIRECT SHEAR: CD

Ult. Res.

Shear Angle: deg.

Tan Shear:

Cohesion: psf

Sieve	(mm)	% Passing
5"	125	
3"	75	
2"	50	
1-1/2"	37.5	
1"	25	
3/4"	19	
1/2"	12.5	
3/8"	9.5	
#4	4.75	
#10	2	
#20	0.85	
#40	0.425	
#100	0.15	
#200	0.075	
	0.02	
	0.005	

Maximum Size Allowed By Sampler 2-1/2"

MOISTURE / DENSITY RELATIONSHIP:

ASTM Method: D-698 A D 4718 - 30% Correction

Max. Dry Density : pcf pcf

Optimum Moisture :

HVEEM-CARMANY: **FHA Soil Swell:**

'R' Value @ 300 psi: 2.9 % Swell

Displacement 300 psi: 1183 psf

Expansion @ 300 psi: psf Remolded Sample

ALLOWABLE BEARING (net): 7000 psf by Consolidometer

Standard Penetration (SPT): psf by Penetrometer

Unconfined Compression (qu): psf

CONSTANT VOLUME SWELL: 1140 psf

COLLAPSE OF 0.00% **DURING SWELL PHASE**

CONSOLIDATION: 1.69% @ 4100 psf

CONSOLIDATION: 3.16% @ 8200 psf

SULFATE SALTS: 10,000 ppm

PERMEABILITY:

K (20 C) Remolded cm/sec @ pcf

SOIL ANALYSIS and SUMMARY

GRAND JUNCTION
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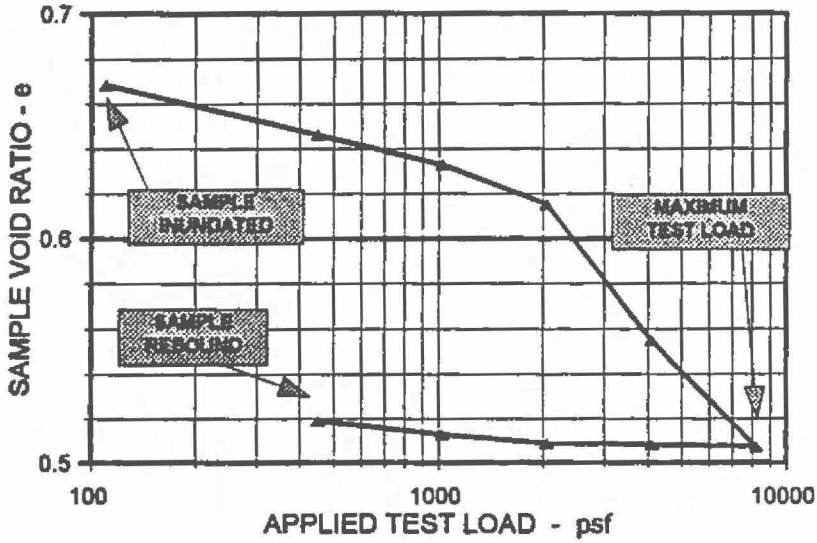
Grand Junction, Colorado

GRAND VIEW SUBDIVISION, Filings 5 & 6
GRAND JUNCTION, COLORADO

DONADA		Date
Grand Junction, Colorado		2-26-2001
Job No. 88484-GJ	Drawn EMM	



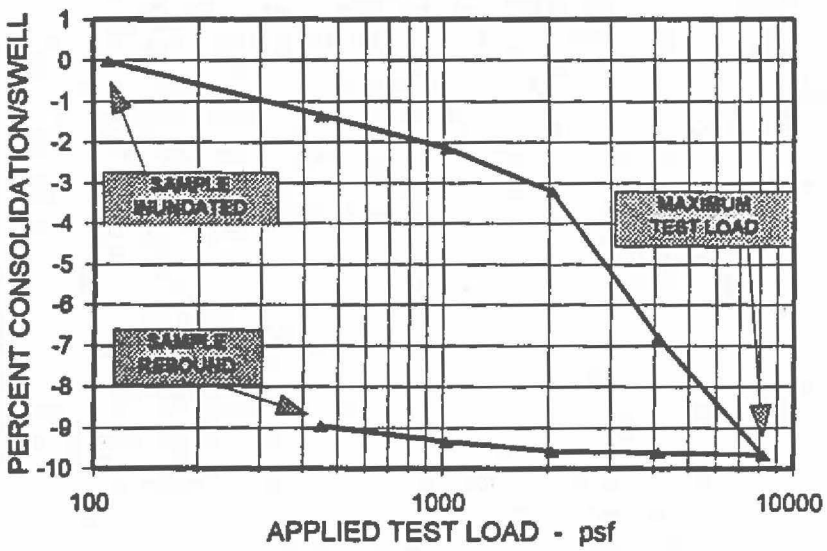
The Consolidation Test (ASTM D-2435) Was Run By Subjecting The Soil Specimen To A 'Seating' Load To Remove Slack From The Apparatus And To Provide An Accurate Point Of Beginning.

The Test Begins With The Specimen At Approximate Natural Moisture Content But, The Porous Stones Are Very Moist To Detect Soil Expansion Characteristics At The Light Test Loads, Prior To Inundation.

The Sample Is Inundated With Water At The Seating Load.

Any Swell Or Collapse Of The Specimen Is Allowed To Occur And The Loading Is Continued.

After The Maximum Test Load, The Soil Specimen Is Unloaded To Measure Rebound And Any Swelling Potential After Consolidation.



LOAD SUMMARY	
110	*psf SEATING LOAD*
110	*psf SAMPLE SATURATED*
0	*% SOIL COLLAPSE*
0.00	*% SOIL EXPANSION / SWELL D-4546 B*
0.70	*% SAMPLE REBOUND @ UNLOAD*
9.66	*% MAXIMUM CONSOLIDATION*
8200	*psf MAXIMUM TEST LOAD*

	INITIAL	MAXIMUM LOAD	FINAL LOAD
SOIL DENSITY (pcf)	99.1	109.3	108.8
SOIL MOISTURE (%)	23.8%	18.8%	19.0%
CONSOLIDATION (%)	-0-	9.66%	8.96%
VOID RATIO (e)	0.669	0.513	0.519
SATURATION (%)	94%	97%	97%

SOIL #: II
SOIL TYPE : CL
TEST HOLE #: 1 @ 8'
SAMPLE Gs: 2.65
DIAMETER: 2.5"
AREA (inches): 03409

SOIL CONSOLIDATION ASTM D-2435

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Geotechnical Consultants
Grand Junction, Colorado

GRAND VIEW SUBDIVISION, Filings 5 & 6
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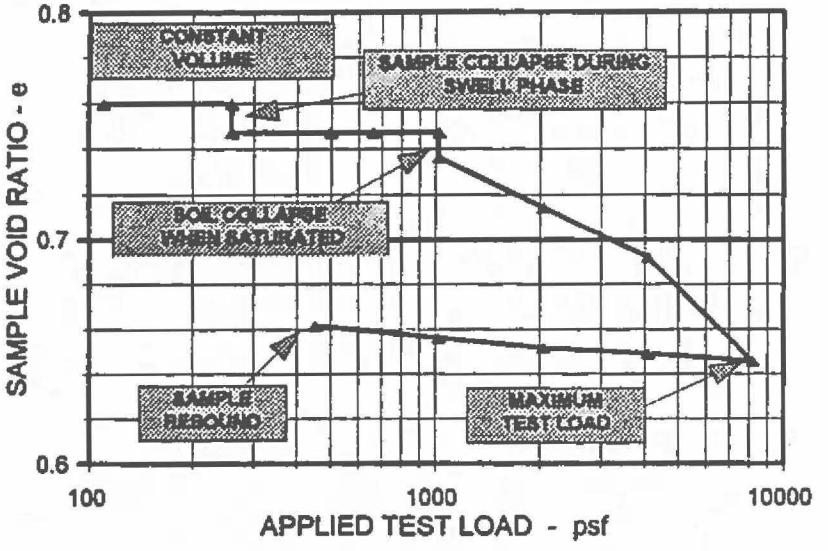

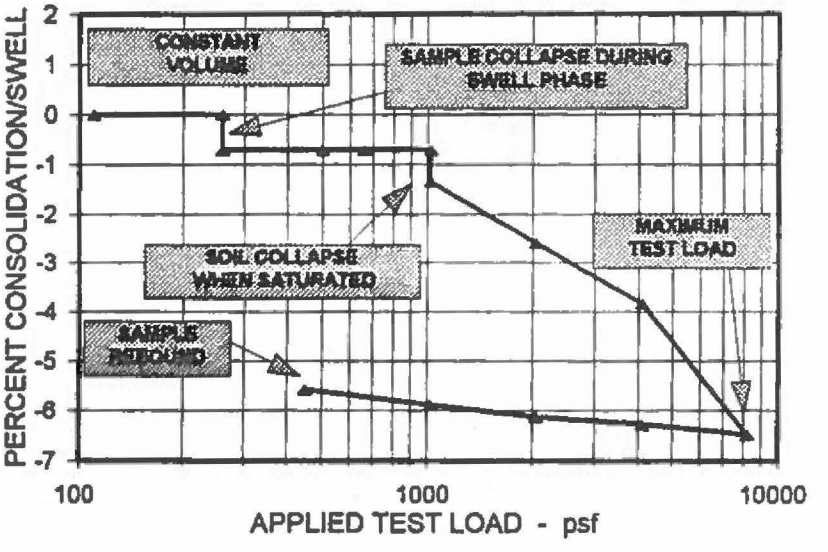

The Swell/Settlement Test (ASTM D-4546 Method C) Was Run By Subjecting The Soil Specimen To A Small Load And The Sample Volume Is Held Constant While The Specimen Attempts To Swell, Increasing In Pressure.

The Test Begins With The Specimen At Approximate Natural Moisture Content But, The Porous Stones Are Very Moist To Detect Soil Expansion Characteristics At Constant Sample Volume, Prior To Inundation.

The Apparatus Automatically Increases The Load Until The Specimen Is Exerting A Constant 'Swell Pressure'.

After Achieving a Constant 'Swell Pressure',The Sample Is Inundated With Water. Any AdditionalSwell Or Collapse Of The Specimen Is Allowed To Occur And The Loading Is Continued.

After The Maximum Test Load, The Soil Specimen Is Unloaded To Measure Rebound And Develop The Data For Calculating The Soil 'Heave' Potential.

LOAD SUMMARY	
110	*psf SEATING LOAD*
1025	*psf SAMPLE SATURATED*
0.63	*% SOIL COLLAPSE UPON SATURATION*
0.91	*% SAMPLE REBOUND @ UNLOAD*
6.47	*% MAXIMUM CONSOLIDATION*
8200	*psf MAXIMUM TEST LOAD*

COLLAPSE of 0.7%, DURING SWELL PHASE
MAXIMUM 'CONSTANT VOLUME' SWELL TO 660 psf.
SWELL PRESSURE 'FELL BACK' TO 500 psf.
COLLAPSE of 0.63%, AFTER SAMPLE INUNDATION

	INITIAL	MAXIMUM LOAD	FINAL LOAD
SOIL DENSITY (pcf)	94.0	100.3	99.5
SOIL MOISTURE (%)	7.8%	22.7%	23.2%
CONSOLIDATION (%)	-0-	6.47%	5.56%
VOID RATIO (e)	0.760	0.649	0.662
SATURATION (%)	27%	93%	93%

SOIL #:	I
SOIL TYPE :	CL-ML, Qdf
TEST HOLE #:	2 @ 3'
SAMPLE Gs:	2.65
DIAMETER:	2.5"
AREA (inches):	.03409

SOIL SWELL/SETTLEMENT ASTM D-4546 C

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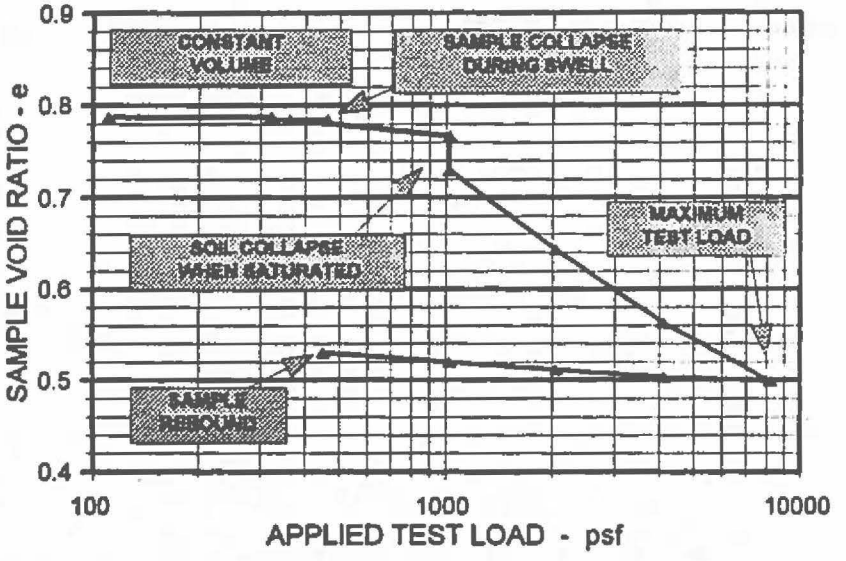
Grand Junction, Colorado

GRAND VIEW SUBDIVISION, Filings 5 & 6
GRAND JUNCTION, COLORADO

DONADA		Date
Grand Junction, Colorado		2-26-2001
Job No. 88484-GJ	Drawn EMM	



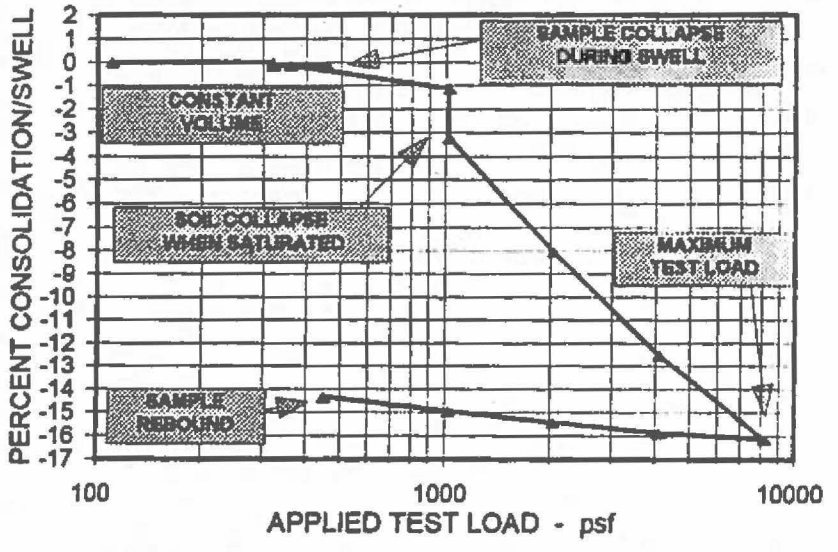
The Swell/Settlement Test (ASTM D-4546 Method C) Was Run By Subjecting The Soil Specimen To A Small Load And The Sample Volume Is Held Constant While The Specimen Attempts To Swell, Increasing In Pressure.

The Test Begins With The Specimen At Approximate Natural Moisture Content But, The Porous Stones Are Very Moist To Detect Soil Expansion Characteristics At Constant Sample Volume, Prior To Inundation.

The Apparatus Automatically Increases The Load Until The Specimen Is Exerting A Constant 'Swell Pressure'.

After Achieving a Constant 'Swell Pressure',The Sample Is Inundated With Water. Any AdditionalSwell Or Collapse Of The Specimen Is Allowed To Occur And The Loading Is Continued.

After The Maximum Test Load, The Soil Specimen Is Unloaded To Measure Rebound And Develop The Data For Calculating The Soil 'Heave' Potential.



LOAD SUMMARY	
110	*psf SEATING LOAD*
1025	*psf SAMPLE SATURATED*
2.06	*% SOIL COLLAPSE UPON SATURATION*
1.78	*% SAMPLE REBOUND @ UNLOAD*
16.12	*% MAXIMUM CONSOLIDATION*
8200	*psf MAXIMUM TEST LOAD*

COLLAPSE of 0.14%, DURING SWELL PHASE
MAXIMUM 'CONSTANT VOLUME' SWELL TO 460 psf.
SWELL PRESSURE 'FELL BACK' TO 360 psf.
COLLAPSE of 2.06%, AFTER SAMPLE INUNDATION

	INITIAL	MAXIMUM LOAD	FINAL LOAD
SOIL DENSITY (pcf)	93.6	111.2	109.2
SOIL MOISTURE (%)	11.1%	18.4%	18.4%
CONSOLIDATION (%)	-0-	16.12%	14.34%
VOID RATIO (e)	0.787	0.504	0.504
SATURATION (%)	38%	98%	98%

SOIL #: I
SOIL TYPE : ML-CL, Qdf
TEST HOLE #: 4 @ 3'
SAMPLE Gs: 2.68
DIAMETER: 2.5"
AREA (inches): .03409

SOIL SWELL/SETTLEMENT ASTM D-4546 C

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Grand Junction, Colorado

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DONADA
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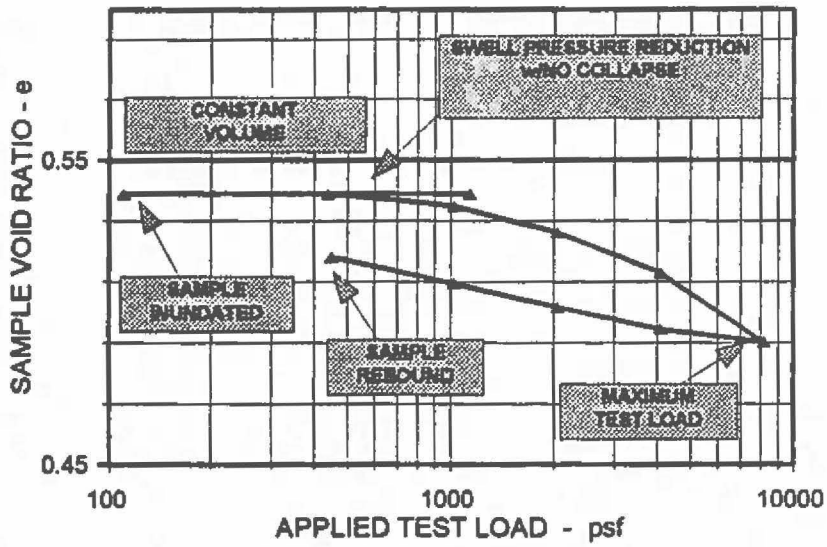
Date 2-26-2001
Job No. 88484-GJ
Drawn EMM

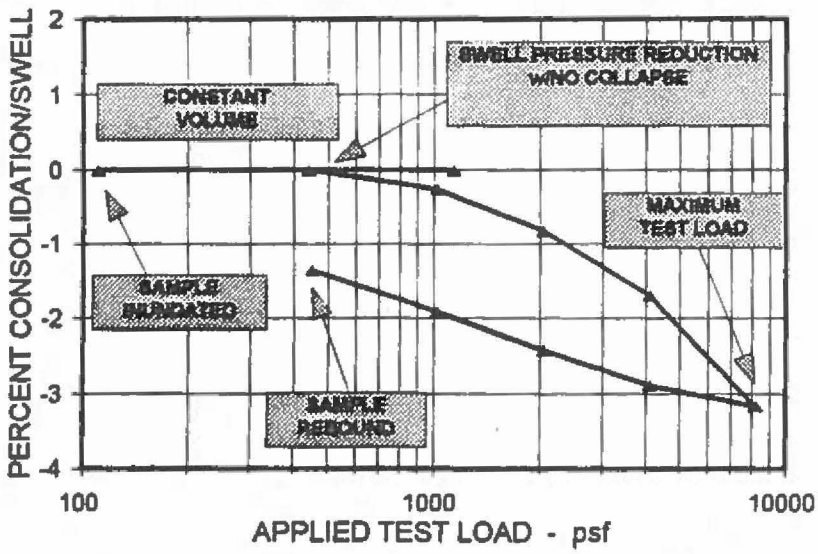


The Swell/Settlement Test (ASTM D-4546 Method C) Was Run By Subjecting The Soil Specimen To A Small Seating' Load. The Porous Stones Are Very Moist And The Sample Immediately Begins To 'Heave'. The Sample Heave' Is Restrained By The Test Apparatus.

The Specimen Is Quickly Inundated With Water. The Specimen Attempts To Heave, Increasing The Pressure Against The Apparatus. The Apparatus Automatically Increases The Load Applied To The Sample Until The Specimen Is Exerting A Constant 'Swell Pressure'.

After The Constant 'Swell Pressure Is Achieved, Any Further Movement is Noted. The Loading Is Continued.

After The Maximum Test Load, The Soil Specimen Is Unloaded To Measure Rebound And Develop The Data For Calculating The Soil 'Heave' Potential.



LOAD SUMMARY	
110	*psf SEATING LOAD*
110	*psf SAMPLE SATURATED*
0	*% SOIL COLLAPSE UPON SATURATION*
1.81	*% SAMPLE REBOUND @ UNLOAD*
3.16	*% MAXIMUM CONSOLIDATION*
8200	*psf MAXIMUM TEST LOAD*

NO SAMPLE COLLAPSE DURING SWELL PHASE
MAXIMUM 'CONSTANT VOLUME' SWELL TO 1140 psf.
SWELL PRESSURE 'FELL BACK' TO 440 psf.

	INITIAL	MAXIMUM LOAD	FINAL LOAD
SOIL DENSITY (pcf)	108.7	111.9	110.2
SOIL MOISTURE (%)	17.7%	18.0%	18.9%
CONSOLIDATION (%)	-0-	3.16%	1.35%
VOID RATIO (e)	0.539	0.495	0.518
SATURATION (%)	88%	98%	98%

SOIL #: III
SOIL TYPE : CL, Wx Km
TEST HOLE #: 3 @ 13'
SAMPLE Gs: 2.68
DIAMETER: 2.5"
AREA (inches): .03409

SOIL SWELL/SETTLEMENT ASTM D-4546 C

GRAND JUNCTION
LINCOLN - DeVORE, Inc.
Geotechnical Consultants
Grand Junction, Colorado

GRAND VIEW SUBDIVISION, Filings 5 & 6
GRAND JUNCTION, COLORADO
DONADA
Grand Junction, Colorado
Date 2-26-2001
Job No. 88484-GJ
Drawn EMM

TREASURER'S CERTIFICATE OF TAXES DUE

Date: 02/22/2001 Certificate No: 107181

STATE OF COLORADO
COUNTY OF MESA

I, the undersigned do hereby certify that the entire amount of taxes and assessments due upon the real estate or personal property described below, and all sales of the same for unpaid taxes or assessments shown by the books in my office, from which the same may still be redeemed, with the amount required for redemption, are as noted herein:

Title Co	: WESTERN COLORADO TITLE	Order #:	01001063
Seller	: DONADA	Buyer :	DONADA
Lender	: TBD	Ordered:	AH
Tax Year	: 2000		
Schedule #:	2943-062-35-018		

Description:
LOT 1 BLK 4 GRAND VIEW SUBDIVISION FIL NO FOUR SEC 6 1S 1E - 12.53AC

Base Tax Amounts Paid:

00 REAL	$	821.13

Total Due $ 0.00

BEFORE PAYING TOTAL DUE, PLEASE CALL FOR UPDATED FIGURES
IF PENALTY IS DUE OR IF THERE ARE OUTSTANDING TAX SALES

-- Continued --

MESA COUNTY TREASURER CORPORATE SEAL COLORADO

2943-062-35-018
Tax Charges Distribution for Taxing Year '00:

Description	Rate	Amount	Description	Rate	Amount
COLO RIVER	0.2830	3.05			
MESA COUNTY	22.7380	245.12			
GRAND JCT	8.0000	86.24			
SCH DST 51	36.0150	388.25			
LIBRARY	3.0000	32.34			
UTE WATER	2.0000	21.56			
SCH D51BOND	6.6200	71.36			
MC TX CRED*	-0.9160	-9.87			
GJ TMLR*	-1.5700	-16.92			
			Totals ----->	76.1700	821.13

MESA COUNTY TREASURER CORPORATE SEAL COLORADO

ENA M. HARRISON
esa County Treasurer

y: _____

CERTIFIED DATE

February 22, 2001

Project Narrative
for:

GRAND VIEW, FILING FIVE and FILING SIX - FINAL

FEBRUARY 15, 2001

Prepared for:

Donada, Inc
626 Grand View Drive
Grand Junction, Colorado 81506

Prepared by:

Atkins and Associates, Inc.
518 28 Road, Suite B-105, P.O. Box 2702
Grand Junction, Colorado 81502
(970) 245-6630

GRAND VIEW SUBDIVISION, FILING NO. FIVE and FILING NO. SIX

PROJECT SUMMARY

Grand View Subdivision, Filing No. Five, is located south and east of Filing No. Four. This phase of the development contains 21 single family residential lots on 6.33 acres resulting in a density of 3.32 dwelling units per acre.

Grand View Subdivision, Filing No. Six, is located east of Filing No. Four. This phase of the development contains 23 single family residential lots on 6.39 acres resulting in a density of 3.59 dwelling units per acre.

Primary access to Filing No. Five is from Ridge Drive to the north and from Hawthorn Avenue via E. Pagosa Drive to the south. Eventually, primary access will also be from Cortland Avenue to the north when Cortland Avenue is extended from 28 Road to the east. Cortland Avenue shall be a 60-foot wide Urban Residential Collector extending along the north side of the site from the west to the east providing future access to Matchett Park. Interior roadways shall be 44-foot wide Urban Residential Streets with a 6'-6" roll over cub, gutter and sidewalk.

Primary access to Filing No. Six is from Ridge Drive to the south. Eventually, primary access will also be from Cortland Avenue to the north when Cortland Avenue is extended from 28 Road to the east. Cortland Avenue shall be a 60-foot wide Urban Residential Collector extending along the north side of the site from the west to the east providing future access to Matchett Park. Interior roadways shall be 44-foot wide Urban Residential Streets with a 6'-6" roll over cub, gutter and sidewalk.

Existing utilities shall be extended from Grand View Subdivision, Filings No. One and Three to serve Filing No. Five and Filing No. Six. All utility infrastructure elements including water, sanitary sewer, electric, gas, telephone, and cable TV are available within previous phases.

Irrigation water will be provided by a zoned pressurized delivery system which will create water conservation. A central pumping facility has been located within the Private Open Space near the southeast corner of Filing No. One. Irrigation to serve Filing No. Five will be extended from Filings One and Three. Irrigation to serve Filing No. Six will be extended from Filings Three, Four and Five.

A Final Drainage Plan for Filing No. Five and Filing No. Six is submitted herein and indicates that the drainage infrastructure to serve the entire Grand View Development was constructed with Filings One and Two. No additional drainage system is needed for this phase.

The rate at which development of Grand View will occur is dependent upon the City's future housing needs. The Final Plan for both Grand View Subdivision Filing No. Five and Filing No. Six is submitted herein with construction scheduled for June of 2001.

FINAL DRAINAGE PLAN

FOR

Grand View Subdivision, Filing No. Five and Filing No. Six

February 15, 2001

Prepared for:

Donada, Inc.
626 Grand View Drive
Grand Junction, CO 81506

Prepared by:

Atkins and Associates, Inc
518 28 Road, Suite B-105, P.O. Box 2702
Grand Junction, Colorado 81502
(970) 245-6630

I hereby certify that this Final Drainage Plan was prepared under my direct supervision.

Prepared by: _____

Richard L. Atkins, P.E.
State of Colorado #12291

Project Location and Description

Grand View Subdivision is located ¼ mile north of Patterson Road, east of 28 Road in the City of Grand Junction. The entire project contains approximately 64.8 acres and is planned for an ultimate buildout of 200 single family residential lots.

The first four phases of the development Grand View Subdivision, Filings One, Two, Three, and Four are complete and in place. These phases of the projects contain approximately 52.27 acres and 154 single family residential lots.

The original Master Drainage Study for Grand View Subdivision (Reference 1) was prepared in July of 1994 and was submitted to the City of Grand Junction with Filing No. One. The Master Drainage Study evaluated the entire development including runoff from areas outside of the project site. The study used the US Army Corps of Engineers HEC1 Flood Hydrograph Package to determine flow rates at various locations.

(Addendum #1) to the Master Drainage Study of Grand View Subdivision (Reference 2) was prepared in June of 1996 and was submitted to the City of Grand Junction with Filing No. Two. This Addendum re-evaluated the original HEC1 runs based on updated design parameters by the City of Grand Junction.

(Addendum #2) to the Master Drainage Study of Grand View Subdivision (Reference 3) was prepared in November of 1996 and was submitted to the City of Grand Junction during the construction of Filing No. Two. This Addendum re-evaluated the subdivision's drainage infrastructure requirements based on no onsite detention. As a result all but one of the onsite detention ponds were eliminated. Stormwater runoff is collected and conveyed by storm sewer systems in Filings One and Two to the southwest corner of the project where it is directed to the City of Grand Junction's existing areawide detention pond.

(Revisions to the Overall Drainage Plan) Statement of Impact to the Master Drainage Study of Grand View Subdivision was prepared in December of 1997 and was submitted to the City of Grand Junction during the engineering design and platting of Filing No. Four.

Runoff Direction and Containment

All remaining undeveloped portions of the project will continue to be served by existing stormsewer systems within Filings One and Two as originally planned. As shown on the Final Drainage Plan for Grand View Subdivision, Filing No. Five and Filing No. Six will collect and convey runoff via surface drainage to the southwest corner of the Grand View development. From this point the runoff combines with flow from Dawn Subdivision and is discharged to the aforementioned areawide detention pond.

Runoff from Grand View Subdivision, Filing No. Five is routed by overlot grading and streets to the intersection of Tamarron Drive and Hawthorn Avenue. The runoff continues down Hawthorn Avenue where it is intercepted by inlets at the intersection of Hawthorn Avenue and East Pagosa Drive. From this point the runoff is conveyed to the southwest corner of the project where it is directed to the City of Grand Junction's existing areawide detention pond.

Runoff from Grand View Subdivision, Filing No. Six is routed by overlot grading and streets to the intersection of Tamarron Drive and Ridge Drive. The runoff then continues down Ridge Drive where it is intercepted by inlets at the intersection of Ridge Drive and Grand View Drive. From this point the runoff is conveyed to the southwest corner of the project where it is directed to the City of Grand Junction's existing areawide detention pond.

Conclusions and Recommendations

The street design and lot configurations within Grand View Subdivision, Filing No. Five and Filing No. Six are consistent with the approved Overall Development Plan therefore the existing stormsewer infrastructure is sufficient to serve this phase of development. No other stormsewer improvements are required for Filing No. Five or Filing No. Six.

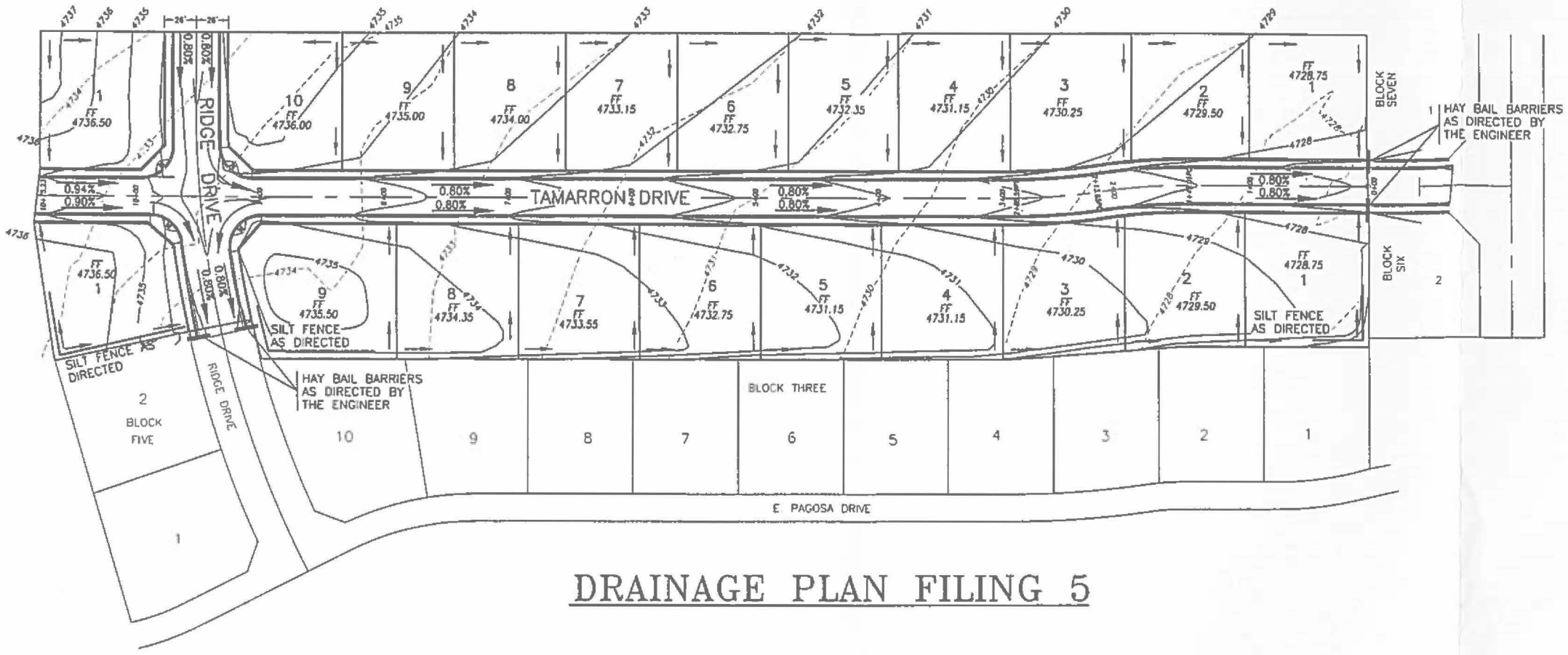
References

1. Master Drainage Study of Grand View Subdivision, Prepared by LANDesign LTD., Grand Junction, Colorado, July 1994.

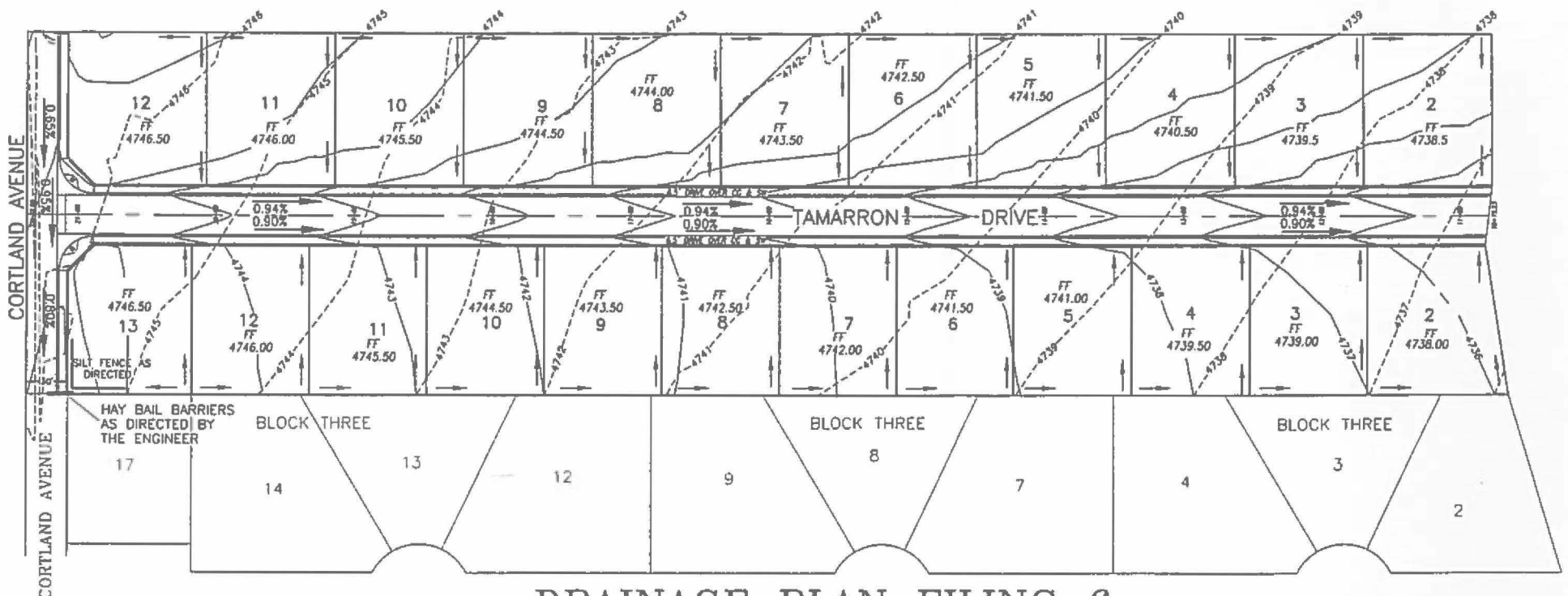
2. (Addendum #1) To The Master Drainage Study of Grand View Subdivision, Prepared by LANDesign LLC., Grand Junction, Colorado, June 1996.

3. (Addendum #3) To The Master Drainage Study of Grand View Subdivision, Prepared by Atkins and Associates, Inc., Grand Junction, Colorado, November 1996.

4. Revisions to The Overall Drainage Plan, Statement of Impact to the Master Drainage Study of Grand View Subdivision, Prepared by Atkins and Associates, Inc., Grand Junction, Colorado, December of 1997.



DRAINAGE PLAN FILING 5



DRAINAGE PLAN FILING 6

LEGEND

- = DRAINAGE FLOW
- = EXISTING CONTOURS
- = FINISH CONTOURS
- HP = HIGH POINT
- FF = FINISH FLOOR ELEVATION

0' 50' 100' 150'

NOTES:

1. Benchmark: West 1/4 Corner, Section 6, T1S, R1E, U.M., 2" Alum. Cap, Elevation 4726.81'
2. All grades are to flowline. Elevation difference between back of walk and flowline of gutter is 0.53' for drive-over curb only.

"APPROVED FOR CONSTRUCTION FOR ONE YEAR FROM THIS DATE. ACCEPTANCE OF THESE PLANS DOES NOT RELIEVE THE DEVELOPER, CONTRACTOR OR ENGINEER FROM CONFORMANCE WITH CITY OF GRAND JUNCTION STANDARDS AND SPECIFICATIONS".

CITY UTILITY ENGINEER — CITY DEVELOPMENT ENGINEER — DATE

DATE	REVISIONS	BY

DRAWN BY: DDC
CHECKED BY: RLA
DATE: 02/28/01
PROJECT NO.: —
FILE NAME: 5/6DPLAN
HORIZ: 1" = 50'
VERT: 1" = 5'

FILING FIVE/SIX
DRAINAGE PLAN

GRAND VIEW SUBDIVISION,
FILING NO. FIVE/SIX

ATKINS AND ASSOCIATES, INC.
518 28 ROAD, SUITE B-105, P.O. BOX 2702
GRAND JUNCTION, COLORADO 81502
970-245-6630 FAX 970-245-2355

SHEET 1 OF 1

G:\Grand View 5\5-6DPLAN.dwg Tue Feb 27 07:52:42 2001 Atkins and Associates, Inc. (Gateway)

COMMITMENT FOR TITLE INSURANCE ISSUED BY

STEWART TITLE
GUARANTY COMPANY

STEWART TITLE GUARANTY COMPANY, A Texas Corporation, herein called the Company, for valuable consideration, hereby commits to issue its policy or policies of title insurance, as identified in Schedule A, in favor of the proposed Insured named in Schedule A, as owner or mortgagee of the estate or interest covered hereby in the land described or referred to in Schedule A, upon payment of the premiums and charges therefor; all subject to the provisions of Schedules A and B and to the Conditions and Stipulations hereof.

This Commitment shall be effective only when the identity of the proposed Insured and the amount of the policy or policies committed for have been inserted in Schedule A hereof by the Company, either at the time of the issuance of this Commitment or by subsequent endorsement.

This Commitment is preliminary to the issuance of such policy or policies of title insurance and all liability and obligations hereunder shall cease and terminate six months after the effective date hereof or when the policy or policies committed for shall issue, whichever first occurs, provided that the failure to issue such policy or policies is not the fault of the Company.

Signed under seal for the Company, but this Commitment shall not be valid or binding until it bears an authorized Countersignature.

IN WITNESS WHEREOF, Stewart Title Guaranty Company has caused its corporate name and seal to be hereunto affixed by its duly authorized officers on the date shown in Schedule A.

STEWART TITLE
GUARANTY COMPANY

Chairman of the Board

Malcolm S. Morris
President

Countersigned:

Authorized Countersignature

WESTERN COLORADO TITLE COMPANY
P.O. Box 178
Grand Junction, CO 81501
(970) 243-3070
Agent ID #060091

Order No. 01001063

SCHEDULE A

Order Number: **01001063**

1. *Effective date:* **January 24, 2001 at 8:00 A.M.**

2. *Policy or Policies to be issued:* — *Amount of Insurance*
   (a) A.L.T.A. Owner's **(Standard)** — **$ 200.00**

   Proposed Insured:

   (b) A.L.T.A. Loan — $

   Proposed Insured:

   (c) Leasehold — $

   Proposed Insured:

3. *The estate or interest in the land described or referred to in this Commitment and covered herein is*

   fee simple

4. *Title to the* **fee simple** *estate or interest in said land is at the effective date hereof vested in:*

   DONADA, INC., A COLORADO CORPORATION

5. *The land referred to in this Commitment is described as follows:*

   Lot 1 in Block 4 of
   GRAND VIEW SUBDIVISION FILING NO. FOUR,
   Mesa County, Colorado

   Legal description subject to change upon the recordation of GRAND VIEW SUBDIVISION FILING NO. FIVE AND GRAND VIEW SUBDIVISION FILING NO. SIX.

Purported Address:

VACANT VACANT
GRAND JUNCTION, CO 81506

STATEMENT OF CHARGES
These charges are due and payable before a Policy can be issued.

PREMIUM	**RESEARCH FEE**
OWNERS:	**$200.00**
MORTGAGE:	
TAX CERT:	**$.15.00**

SCHEDULE B
Section 1

Order Number: **01001063**

REQUIREMENTS

The following are the requirements to be complied with:

Item (a) Payment to or for the account of the grantors or mortgagors of the full consideration for the estate or interest to be insured.

Item (b) Proper instrument(s) creating the estate or interest to be insured must be executed and duly filed for record, to wit:

1. **Properly executed plat of GRAND VIEW SUBDIVISION, FILING NO. FIVE.**

2. **Properly executed plat of GRAND VIEW SUBDIVISION, FILING NO. SIX.**

SCHEDULE B
Section 2

Order Number: **01001063**

EXCEPTIONS

The policy or policies to be issued will contain exceptions to the following unless the same are disposed of to the satisfaction of the Company:

1. *Rights or claims of parties in possession, not shown by the public records.*

2. *Easements, or claims of easements, not shown by the public records.*

3. *Discrepancies, conflicts in boundary lines, shortage in area, encroachments, and any facts which a correct survey and inspection of the premises would disclose and which are not shown by the public records.*

4. *Any lien, or right to a lien, for services, labor or material heretofore or hereafter furnished, imposed by law and not shown by the public records.*

5. *Defects, liens, encumbrances, adverse claims or other matters, if any, created, first appearing in the public records or attaching subsequent to the effective date hereof, but prior to the date the proposed insured acquires of record for value the estate or interest or mortgage thereon covered by this commitment.*

6. *Unpatented mining claims; reservations or exceptions in patents, or an act authorizing the issuance thereof; water rights, claims or title to water.*

7. **Taxes for the year 2001, a lien but not yet due or payable.**

8. **All easement(s) across herein described property as shown on the Plat of said subdivision, together with incidental purposes.**

9. **Reservations and exceptions in Patents, or Acts authorizing the issuance thereof, including the reservation of the right of proprietor of a vein or lode to extract and remove his ore therefrom should the same be found to penetrate or intersect the premises as reserved in United States Patent recorded October 21, 1891 in Book 11 at Page 119.**

10. **Restrictions, which do not contain a forfeiture or reverter clause, but omitting restrictions, if any, based on race, color, religion, or national origin, as contained in instrument recorded May 9, 1995 in Book 2143 at Page 753 and all amendments thereto and including the terms and conditions thereof.**

11. **Easement and right-of-way appurtenant to Walker Field Airport, for the passage of all aircraft in the navigable airspace above subject property as granted to the Walker Field, Colorado, Public Airport by instrument recorded July 9, 1999 in Book 2608 at Page 633, together with incidental purposes.**

12. **Terms, conditions, stipulations, obligations and provisions of the Ordinance No. 3156 recorded July 16, 1999 in Book 2610 at Page 976.**

13. **Terms, conditions, stipulations, obligations and provisions of the Development Improvements Agreement recorded February 15, 2000 in Book 2679 at Page 545.**

DISCLOSURES

Pursuant to C.R.S. 10-11-122, notice is hereby given that:

(A) THE SUBJECT REAL PROPERTY MAY BE LOCATED IN A SPECIAL TAXING DISTRICT;

(B) A CERTIFICATE OF TAXES DUE LISTING EACH TAXING JURISDICTION SHALL BE OBTAINED FROM THE COUNTY TREASURER OR THE COUNTY TREASURER'S AUTHORIZED AGENT;

(C) INFORMATION REGARDING SPECIAL DISTRICTS AND THE BOUNDARIES OF SUCH DISTRICTS MAY BE OBTAINED FROM THE BOARD OF COUNTY COMMISSIONERS, THE COUNTY CLERK AND RECORDER, OR THE COUNTY ASSESSOR.

Note: Colorado Division of Insurance Regulations 3-5-1, Paragraph C of Article VII requires that "Every title entity shall be responsible for all matters which appear of record prior to the time of recording whenever the title entity conducts the closing and is responsible for recording or filing of legal documents resulting from the transaction which was closed." Provided that Western Colorado Title Company conducts the closing of the insured transaction and is responsible for recording the legal documents from the transaction, exception number 5 will not appear on the Owner's Title Policy and the Lender's Title Policy when issued.

Note: Affirmative Mechanic's Lien Protection for the Owner may be available (typically by deletion of Exception No. 4 of Schedule B, Section 2 of the Commitment from the Owner's Policy to be issued) upon compliance with the following conditions:

A. The land described in Schedule A of this commitment must be a single family residence, which includes a condominium or townhouse unit.

B. No labor or materials have been furnished by mechanics or materialmen for purposes of construction on the land described in Schedule A of this Commitment within the past 6 months.

C. The Company must receive an appropriate affidavit indemnifying the Company against unfiled mechanic's and materialmen's liens.

D. The company must receive payment of the appropriate premium.

E. If there has been construction, improvements or major repairs undertaken on the property to be purchased, within six months prior to the Date of the Commitment, the requirements to obtain coverage for unrecorded liens will include: disclosure of certain construction information; financial information as to the seller, the builder and/or the contractor; payment of the appropriate premium; fully executed Indemnity agreements satisfactory to the company; and, any additional requirements as may be necessary after an examination of the aforesaid information by the Company.

No coverage will be given under any circumstances for labor or material for which the insured has contracted for or agreed to pay.

NOTHING HEREIN CONTAINED WILL BE DEEMED TO OBLIGATE THE COMPANY TO PROVIDE ANY OF THE COVERAGES REFERRED TO HEREIN UNLESS THE ABOVE CONDITIONS ARE FULLY SATISFIED.

Order No. 01001063

Client: Travis Jordan	Report No: 3
Project: Grandview Subdivision, Filing 4	Date of Test: 10-7-99
Location:	Test By: RL
	GJLD Job No: 87684-GJ

TEST TYPE:	Nuclear (ASTM 2922) Backscatter	Nuclear (ASTM 2922) Direct Trans. X	(ASTM D-1556) Sand Cone

SPECIFICATIONS: Project: City: X County: State:

Test No.	Location of Test	COMPACTION %	COMPAC. SPEC. %	MOISTURE CONT. %	MOISTURE SPEC. %	PROCTOR VALUE	SOIL TYPE
40	Existing sewer MH, sta 0+00, E. Pagosa @ FSG	95	95	14.6	+-2	115.2@14.7	C
41	SS, Lot 13, Blk 2 @ FSG	95	95	14.3	+-2	115.2@14.7	C
42	SS, Lot 1, Blk 3 @ FSG	99	95	14.4	+-2	115.2@14.7	C
43	SS, Lot 12, Blk 2 @ FSG	97	95	13.6	+-2	115.2@14.7	C
44	Sewer main between existing MH & MH EP1 @ FSG	99	95	14.7	+-2	115.2@14.7	C
45	MH EP1 @ FSG	98	95	14.7	+-2	115.2@14.7	C
46	SS, Lot 11, Blk 2 @ FSG	98	95	14.0	+-2	115.2@14.7	C
47	Sewer main between MH EP1 & C1 @ FSG	97	95	15.7	+-2	115.2@14.7	C
48	SS, Lot 5, Blk 3 (off Conifer Ct) @ FSG	97	95	15.2	+-2	115.2@14.7	C
49	MH C1 @ FSG	97	95	14.7	+-2	115.2@14.7	C
50	SS, Lot 2, Blk 3 @ FSG	96	95	13.4	+-2	115.2@14.7	C
51	SS, Lot 3, Blk 3 @ FSG	96	95	13.5	+-2	115.2@14.7	C
52	SS, Lot 4, Blk 3 @ FSG	97	95	14.5	+-2	115.2@14.7	C

DISTRIBUTION: Page 1 of 2

1-Client 1-Ute Water

1-Subdiv Env 1-City of GJ

1-Atkins & Assoc.

KEY: * Fails Compaction Spec. C = Cohesive

** Fails Moisture Spec. NC = NonCohesive

S Standard Proctor ABC = Aggregate Base

M Modified Proctor PR = Pit Run

GRAND JUNCTION LINCOLN DeVORE, INC.

BY: RL

FILL DENSITY TEST DAILY REPORT

NOTE: Results indicate in-place soil densities at the locations and depths identified above. Grand Junction Lincoln DeVore has relied on the contractor to provide uniform mix placement and compactive effort throughout the fill area.

Nuclear Density Testing of 'pit run' or other coarse grained soils may require correction of Unit Weight And Water Content, ASTM D-4718. If soils contain oversize particles in excess of the limits of ASTM D-4718

Nuclear Density Testing is performed for acceptance control and is combined with visual and penetration methods.

GRAND JUNCTION LINCOLN DeVORE

Geotechnical Engineers-Geologists

Client: Travis Jordan	Report No: 3
Project: Grandview Subdivision, Filing 4	Date of Test: 10-7-99
Location:	Test By: RL
	GJLD Job No: 87684-GJ

TEST TYPE:	Nuclear (ASTM 2922) Backscatter	Nuclear (ASTM 2922) Direct Trans. X	(ASTM D-1556) Sand Cone	SPECIFICATIONS:	Project:	City: X	County:	State:

Test No.	Location of Test	COMPACTION %	COMPAC. SPEC. %	MOISTURE CONT. %	MOISTURE SPEC. %	PROCTOR VALUE	SOIL TYPE
53	SS, Lot 10, Blk 2 @ FSG	99	95	12.3	+-2	115.2@14.7	C
54	Sewer main between MH EP1 & MH EP2 @ FSG	96	95	14.2	+-2	115.2@14.7	C
55	SS, Lot 5, Blk 3 (Off E Pagosa) @ FSG	96	95	15.0	+-2	115.2@14.7	C
56	SS, Lot 6, Blk 3 @ FSG	97	95	13.8	+-2	115.2@14.7	C
57	SS, Lot 11, Blk 1 @ FSG	98	95	14.5	+-2	115.2@14.7	C
58	SS, Lot 12, Blk 1 @ FSG	97	95	14.2	+-2	115.2@14.7	C
59	MH EP2 @ FSG	96	95	14.5	+-2	115.2@14.7	C
60	MH GV1 @ -2' BSG	99	95	14.7	+-2	115.2@14.7	C

DISTRIBUTION: Page 2 of 2

1-Client 1-Ute Water

1-Subdiv Env 1-City of GJ

1-Atkins & Assoc.

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S Standard Proctor ABC = Aggregate Base

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GRAND JUNCTION LINCOLN DeVORE, INC.

BY: RL

FILL DENSITY TEST DAILY REPORT

NOTE: Results indicate in-place soil densities at the locations and depths identified above. Grand Junction Lincoln DeVore has relied on the contractor to provide uniform mix placement and compactive effort throughout the fill area.

Nuclear Density Testing of 'pit run' or other coarse grained soils may require correction of Unit Weight And Water Content, ASTM D-4718. If soils contain oversize particles in excess of the limits of ASTM D-4718

Nuclear Density Testing is performed for acceptance control and is combined with visual and penetration methods.

GRAND JUNCTION LINCOLN DeVORE

Geotechnical Engineers-Geologists

Client: Travis Jordan	Report No: 4
Project: Grandview Subdivision, Filing 4	Date of Test: 10-11-99
Location:	Test By: LS
	GJLD Job No: 87684-GJ

TEST TYPE:	Nuclear (ASTM 2922) Backscatter	Nuclear (ASTM 2922) Direct Trans. X	(ASTM D-1556) Sand Cone	SPECIFICATIONS:	Project:	City: X	County:	State:

Test No.	Location of Test	COMPACTION %	COMPAC. SPEC. %	MOISTURE CONT. %	MOISTURE SPEC. %	PROCTOR VALUE	SOIL TYPE
61	Sewer MH GV2 @ 2' BSG	97	95	14.0	+-2	120.2@13.2	C
62	Sewer main between MH GV2 & GV5 @ 2' BSG	97	95	14.1	+-2	120.2@13.2	C
63	Sewer main between MH GV1 & GV2 @ 2' BSG	98	95	12.9	+-2	120.2@13.2	C
64	SS, Lot 1, Blk 1 @ 2' BSG	98	95	13.9	+-2	120.2@13.2	C
65	Sewer main existing MH, S side @ FSG	95	95	13.4	+-2	120.2@13.2	C
66	Sewer main existing MH @ FSG	95	95	14.5	+-2	120.2@13.2	C
67	SS, lot 1, Blk 2 @ 2' BSG	99	95	12.8	+-2	120.2@13.2	C
68	SS, Lot 5, Blk 2 @ 2' BSG	97	95	13.5	+-2	120.2@13.2	C
69	SS, Lot 4, Blk 2 @ 2' BSG	97	95	13.6	+-2	120.2@13.2	C
70	SS, Lot 3, Blk 2 @ 2' BSG	95	95	14.5	+-2	120.2@13.2	C
71	Sewer MH GV5 @ 2' BSG	96	95	13.3	+-2	120.2@13.2	C
72	SS, Lot 2, Blk 2 @ 2' BSG	98	95	12.9	+-2	115.2@14.7	C
73	SS, Lot 2, Blk 1 @ 2' BSG	99	95	14.1	+-2	115.2@14.7	C

DISTRIBUTION: Page 1 of 3

1-Client 1-Ute Water

1-Subdiv Env 1-City of GJ

1-Atkins & Assoc.

KEY: * Fails Compaction Spec. C = Cohesive

** Fails Moisture Spec. NC = NonCohesive

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GRAND JUNCTION LINCOLN DeVORE, INC.

BY:

FILL DENSITY TEST DAILY REPORT

NOTE: Results indicate in-place soil densities at the locations and depths identified above. Grand Junction Lincoln DeVore has relied on the contractor to provide uniform mix placement and compactive effort throughout the fill area.

Nuclear Density Testing of 'pit run' or other coarse grained soils may require correction of Unit Weight And Water Content, ASTM D-4718. If soils contain oversize particles in excess of the limits of ASTM D-4718

Nuclear Density Testing is performed for acceptance control and is combined with visual and penetration methods.

GRAND JUNCTION LINCOLN DeVORE

Geotechnical Engineers-Geologists

Client: Travis Jordan	Report No: 4
Project: Grandview Subdivision, Filing 4	Date of Test: 10-11-99
Location:	Test By: LS
	GJLD Job No: 87684-GJ

TEST TYPE:	Nuclear (ASTM 2922) Backscatter	Nuclear (ASTM 2922) Direct Trans. X	(ASTM D-1556) Sand Cone	SPECIFICATIONS:	Project:	City: X	County:	State:

Test No.	Location of Test	COMPACTION %	COMPAC. SPEC. %	MOISTURE CONT. %	MOISTURE SPEC. %	PROCTOR VALUE	SOIL TYPE
74	Sewer main between MH GV2 & GV3 @ 2' BGS	96	95	14.9	+-2	115.2@14.7	C
75	SS, Lot 6, Blk 2 @ 2' BSG	95	95	14.3	+-2	115.2@14.7	C
76	SS, Lot 3, Blk 1 @ 2' BSG	95	95	12.3	+-2	115.2@14.7	C
77	SS, Lot 7, Blk 2 @ 2' BSG	95	95	14.3	+-2	115.2@14.7	C
78	SS, Lot 4, Blk 1 @ 2' BSG	99	95	13.1	+-2	115.2@14.7	C
79	SS, Lot 5, Blk 1 @ 2' BSG	97	95	12.8	+-2	115.2@14.7	C
80	SS, Lot 6, Blk 1 @ 2' BSG	95	95	13.5	+-2	115.2@14.7	C
81	Sewer MH GV3 @ 2' BSG	96	95	12.8	+-2	115.2@14.7	C
82	Sewer main between MH GV3 & GV4 @ 2' BSG	95	95	15.1	+-2	115.2@14.7	C
83	SS, Lot 7, Blk 1 @ 2' BSG	95	95	13.8	+-2	115.2@14.7	C
84	SS, Lot 8, Blk 1 @ 2' BSG	95	95	13.2	+-2	115.2@14.7	C
85	SS, Lot 8, Blk 2 @ 2' BSG	96	95	15.5	+-2	115.2@14.7	C
86	SS, Lot 9, Blk 1 @ 2' BSG	98	95	14.3	+-2	115.2@14.7	C

DISTRIBUTION: Page 2 of 3

1-Client 1-Ute Water

1-Subdiv Env 1-City of GJ

1-Atkins & Assoc.

KEY: * Fails Compaction Spec. C = Cohesive

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S Standard Proctor ABC = Aggregate Base

M Modified Proctor PR = Pit Run

GRAND JUNCTION LINCOLN DeVORE, INC.

BY:

FILL DENSITY TEST DAILY REPORT

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GRAND JUNCTION LINCOLN DeVORE

Geotechnical Engineers-Geologists

Client: Travis Jordan	Report No: 4
Project: Grandview Subdivision, Filing 4	Date of Test: 10-11-99
Location:	Test By: LS
	GJLD Job No: 87684-GJ

TEST TYPE:	Nuclear (ASTM 2922) Backscatter	Nuclear (ASTM 2922) Direct Trans. X	(ASTM D-1556) Sand Cone	SPECIFICATIONS:	Project:	City: X	County:	State:

Test No.	Location of Test	COMPACTION %	COMPAC. SPEC. %	MOISTURE CONT. %	MOISTURE SPEC. %	PROCTOR VALUE	SOIL TYPE
87	SS, Lot 9, Blk 2 @ 2' BSG	97	95	15.1	+-2	115.2@14.7	C
88	SS, Lot 10, Blk 1 @ 2' BSG	99	95	13.4	+-2	115.2@14.7	C
89	Sewer MH GV4 @ 2' BSG	98	95	13.1	+-2	120.2@13.2	C
	Rock correction applied to proctor, as required						

DISTRIBUTION: Page 3 of 3

1-Client 1-Ute Water

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GRAND JUNCTION LINCOLN DeVORE, INC.

BY:

FILL DENSITY TEST DAILY REPORT

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GRAND JUNCTION LINCOLN DeVORE

Geotechnical Engineers-Geologists

Client: Travis Jordan	Report No: 5
Project: Grandview Subdivision, Filing 4	Date of Test: 10-12-99
Location:	Test By: AR, RL
	GJLD Job No: 87684-GJ

TEST TYPE:	Nuclear (ASTM 2922) Backscatter	Nuclear (ASTM 2922) Direct Trans. X	(ASTM D-1556) Sand Cone	SPECIFICATIONS:	Project:	City: X	County:	State:

Test No.	Location of Test	COMPACTION %	COMPAC. SPEC. %	MOISTURE CONT. %	MOISTURE SPEC. %	PROCTOR VALUE	SOIL TYPE
90	SS, Lot 1, Blk 1 @ FG	98	95	13.2	+-2	115.2@14.7	C
91	Sewer MH GV2 @ FG	96	95	12.7	+-2	115.2@14.7	C
92	SS, Lot 1, Blk 2 @ FG	99	95	12.9	+-2	115.2@14.7	C
93	Sewer main between MH GV2 & GV5 @ FG	98	95	13.0	+-2	115.2@14.7	C
94	SS, Lot 5, Blk 2 @ FG	97	95	13.0	+-2	115.2@14.7	C
95	Sewer MH GV5 @ FG	99	95	14.2	+-2	115.2@14.7	C
96	SS, Lot 2, Blk 2 @ FG	98	95	12.4	+-2	115.2@14.7	C
97	SS, Lot 3, Blk 2 @ FG	98	95	13.3	+-2	115.2@14.7	C
98	SS, Lot 4, Blk 2 @ FG	97	95	14.0	+-2	115.2@14.7	C
99	SS, Lot 2, Blk 2 @ FG	98	95	12.7	+-2	115.2@14.7	C
100	SS, Lot 6, Blk 2 @ FG	98	95	15.3	+-2	115.2@14.7	C
101	SS, Lot 3, Blk 1 @ FG	98	95	13.6	+-2	115.2@14.7	C
102	Sewer main between MH GV2 & GV3 @ FG	98	95	14.9	+-2	115.2@14.7	C

DISTRIBUTION: Page 1 of 2

1-Client 1-Ute Water

1-Subdiv Env 1-City of GJ

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GRAND JUNCTION LINCOLN DeVORE, INC.

BY:

FILL DENSITY TEST DAILY REPORT

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GRAND JUNCTION LINCOLN DeVORE

Geotechnical Engineers-Geologists

Client: Travis Jordan	Report No: 5
Project: Grandview Subdivision, Filing 4	Date of Test: 10-12-99
Location:	Test By: AR, RL
	GJLD Job No: 87684-GJ

TEST TYPE:	Nuclear (ASTM 2922) Backscatter	Nuclear (ASTM 2922) Direct Trans. X	(ASTM D-1556) Sand Cone	SPECIFICATIONS:	Project:	City: X	County:	State:

Test No.	Location of Test	COMPACTION %	COMPAC. SPEC. %	MOISTURE CONT. %	MOISTURE SPEC. %	PROCTOR VALUE	SOIL TYPE
103	SS, Lot 4, Blk 1 @ FG	97	95	12.7	+-2	115.2@14.7	C
104	SS, Lot 7, Blk 2 @ FG	97	95	13.6	+-2	115.2@14.7	C
105	SS, Lot 5, Blk 1 @ FG	98	95	13.7	+-2	115.2@14.7	C
106	Sewer MH GV3 @ FG	96	95	15.6	+-2	115.2@14.7	C
107	SS, Lot 6, Blk 1 @ FG	96	95	12.8	+-2	115.2@14.7	C
108	SS, Lot 7, Blk 1 @ FG	99	95	12.9	+-2	115.2@14.7	C
109	Sewer main between MH GV3 & GV4 @ FG	96	95	14.0	+-2	115.2@14.7	C
110	SS, Lot 8, Blk 1 @ FG	98	95	14.2	+-2	115.2@14.7	C
111	SS, Lot 8, Blk 2 @ FG	97	95	12.7	+-2	115.2@14.7	C
112	SS, Lot 9, Blk 1 @ FG	97	95	14.4	+-2	115.2@14.7	C
113	SS, Lot 9, Blk 2 @ FG	97	95	12.8	+-2	115.2@14.7	C
114	Sewer MH GV4 @ FG	97	95	13.8	+-2	115.2@14.7	C
115	SS, Lot 10, Blk 1 @ FG	100	95	13.8	+-2	115.2@14.7	C

DISTRIBUTION: Page 2 of 2

1-Client 1-Ute Water

1-Subdiv Env 1-City of GJ

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GRAND JUNCTION LINCOLN DeVORE, INC.

BY:

FILL DENSITY TEST DAILY REPORT

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GRAND JUNCTION LINCOLN DeVORE

Geotechnical Engineers-Geologists

Client: Travis Jordan	Report No: 6
Project: Grandview Subdivision, Filing 4	Date of Test: 10-18-99
Location:	Test By: AR, RL
	GJLD Job No: 87684-GJ

TEST TYPE:	Nuclear (ASTM 2922) Backscatter	Nuclear (ASTM 2922) Direct Trans. X	(ASTM D-1556) Sand Cone	SPECIFICATIONS:	Project:	City: X	County:	State:

Test No.	Location of Test	COMPACTION %	COMPAC. SPEC. %	MOISTURE CONT. %	MOISTURE SPEC. %	PROCTOR VALUE	SOIL TYPE
116	Water main, sta 8+50, Grandview Dr @ 2' BFG	96	95	12.8	+-2	115.2@14.7	C
117	WS, Lots 1 & 2, Blk 1 @ 2' BFG	96	95	13.6	+-2	115.2@14.7	C
118	Water main, sta 0+50, Eldora Ct @ 2' BFG	95	95	13.4	+-2	115.2@14.7	C
119	WS, Lots 1 & 2, Blk 2 @ 2' BFG	95	95	12.9	+-2	115.2@14.7	C
120	WS, Lots 4 & 5, Blk 2 @ 2' BFG	97	95	13.3	+-2	115.2@14.7	C
121	WS, Lot 3, Blk 2 @ 2' BFG	98	95	12.7	+-2	115.2@14.7	C
122	WS, hydrant, Lot 6, Blk 2 @ 2' BFG	93*	95	9.7**	+-2	115.2@14.7	C
123	WS, Lots 6 & 7, Blk 2 @ 2' BFG	100	95	13.0	+-2	115.2@14.7	C
124	Water main, sta 6+50, Eldora Ct @ 2' BFG	97	95	12.9	+-2	115.2@14.7	C
125	WS, Lots 3 & 4, Blk 1 @ 2' BFG	95	95	13.5	+-2	115.2@14.7	C
126	WS, Lots 5 & 6, Blk 1 @ 2' BFG	95	95	15.1	+-2	115.2@14.7	C
127	WS, Lots 7 & 8, Blk 1 @ 2' BFG	97	95	14.3	+-2	115.2@14.7	C
128	Water main, sta 4+50, Grandview Dr @ 2' BFG	99	95	13.1	+-2	115.2@14.7	C

DISTRIBUTION: Page 1 of 2

1-Client 1-Ute Water

1-Subdiv Env 1-City of GJ

1-Atkins & Assoc.

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GRAND JUNCTION LINCOLN DeVORE, INC.

BY: AR

FILL DENSITY TEST DAILY REPORT

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GRAND JUNCTION LINCOLN DeVORE

Geotechnical Engineers-Geologists

Client: Travis Jordan	Report No: 6
Project: Grandview Subdivision, Filing 4	Date of Test: 10-18-99
Location:	Test By: AR, RL
	GJLD Job No: 87684-GJ

TEST TYPE:	Nuclear (ASTM 2922) Backscatter	Nuclear (ASTM 2922) Direct Trans. X	(ASTM D-1556) Sand Cone	SPECIFICATIONS:	Project:	City: X	County:	State:

Test No.	Location of Test	COMPACTION %	COMPAC. SPEC. %	MOISTURE CONT. %	MOISTURE SPEC. %	PROCTOR VALUE	SOIL TYPE
129	WS, Lot 8, Blk 2 @ 2' BFG	100	95	12.7	+-2	115.2@14.7	C
130	WS, hydrant, Lot 8, Blk 2 @ 2' BFG	98	95	13.5	+-2	115.2@14.7	C
131	WS, Lot 9, Blk 2 @ 2' BFG	98	95	13.7	+-2	115.2@14.7	C
132	WS, Lots 9 & 10, Blk 1 @ 2' BFG	95	95	14.4	+-2	115.2@14.7	C
133	Water main, sta 2+50, Grandview Dr @ 2' BFG	95	95	13.9	+-2	115.2@14.7	C
134	Water main, sta 0+50, Grandview Dr @ 2' BFG	100	95	13.7	+-2	115.2@14.7	C
135	WS, hydrant, Lot 6, Blk 3 @ 2' BFG	98	95	13.6	+-2	115.2@14.7	C
136	Water main, sta 4+50, E. Pagosa Dr @ 2' BFG	95	95	12.7	+-2	115.2@14.7	C
137	WS, hydrant, Lot 1, Blk 3 @ 2' BFG	95	95	13.7	+-2	115.2@14.7	C
138	Water main, sta 1+00, E. Pagosa Dr @ 2' BFG	95	95	13.9	+-2	115.2@14.7	C
139	WS, Lots 12 & 13, Blk 2 @ 2' BFG	97	95	16.1	+-2	115.2@14.7	C
122A	RETEST	96	95	14.6	+-2	115.2@14.7	C

DISTRIBUTION: Page 2 of 2

1-Client 1-Ute Water

1-Subdiv Env 1-City of GJ

1-Atkins & Assoc.

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GRAND JUNCTION LINCOLN DeVORE, INC.

BY: AR

FILL DENSITY TEST DAILY REPORT

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GRAND JUNCTION LINCOLN DeVORE

Geotechnical Engineers-Geologists

Client: Travis Jordan	Report No: 7
Project: Grandview Subdivision, Filing 4	Date of Test: 10-19-99
Location:	Test By: LS, RL
	GJLD Job No: 87684-GJ

TEST TYPE:	Nuclear (ASTM 2922) Backscatter	Nuclear (ASTM 2922) Direct Trans. X	(ASTM D-1556) Sand Cone	SPECIFICATIONS:	Project:	City: X	County:	State:

Test No.	Location of Test	COMPACTION %	COMPAC. SPEC. %	MOISTURE CONT. %	MOISTURE SPEC. %	PROCTOR VALUE	SOIL TYPE
140	WS, Lots 11 & 12, Blk 1 @ 2' BSG	95	95	13.8	+-2	115.2@14.7	C
141	WS, Lot 6, Blkk 3 @ 2' BSG	95	95	13.2	+-2	115.2@14.7	C
142	WS, Lot 5, Blk 3 @ 2' BSG	95	95	13.7	+-2	115.2@14.7	C
143	Water main, sta 2+50 @ 2' BSG	96	95	15.3	+-2	115.2@14.7	C
144	WS, Lots 10 & 11, Blk 2 @ 2' BSG	95	95	12.9	+-2	115.2@14.7	C
145	Water main, Conifer St., sta 0+50 @ 2' BSG	100	95	15.0	+-2	115.2@14.7	C
146	WS, Lots 1 & 2, Blk 3 @ 2' BSG	96	95	16.3	+-2	115.2@14.7	C
147	WS, Lots 3 & 4, Blk 3 @ 2' BSG	95	95	16.2	+-2	115.2@14.7	C
148	Water fire hydrant, Lot 1, Blk 3 @ FSG	100	95	13.0	+-2	115.2@14.7	C
149	WS, Lots 12 & 13, Blk 2 @ FSG	96	95	15.0	+-2	115.2@14.7	C
150	Water main, Pagosa Dr, sta 0+50 @ FSG	100	95	13.9	+-2	115.2@14.7	C
151	WS, Lots 1 & 2, Blk 2 @ FSG	96	95	13.1	+-2	115.2@14.7	C
152	WS, Lot 3, Blk 2 @ FSG	97	95	15.8	+-2	115.2@14.7	C

DISTRIBUTION: Page 1 of 3

1-Client 1-Ute Water

1-Subdiv Env 1-City of GJ

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GRAND JUNCTION LINCOLN DeVORE, INC.

BY: RL

FILL DENSITY TEST DAILY REPORT

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GRAND JUNCTION LINCOLN DeVORE

Geotechnical Engineers-Geologists

Travis Jordan			Report No: 7
Project: Grandview Subdivision, Filing 4			Date of Test: 10-19-99
Location:			Test By: LS, RL
			GJLD Job No: 87684-GJ

TEST TYPE:	Nuclear (ASTM 2922) Backscatter	Nuclear (ASTM 2922) Direct Trans. X	(ASTM D-1556) Sand Cone	SPECIFICATIONS:	Project:	City: X	County:	State:

Test No.	Location of Test	COMPACTION %	COMPAC. SPEC. %	MOISTURE CONT. %	MOISTURE SPEC. %	PROCTOR VALUE	SOIL TYPE
153	WS, Lots 4 & 5, Blk 2 @ FSG	95	95	13.7	+-2	115.2@14.7	C
154	Water main, Eldorado Ct., sta 2+00 @ FSG	100	95	13.2	+-2	115.2@14.7	C
155	Water main, Eldorado Ct., sta 0+25 @ FSG	98	95	13.2	+-2	115.2@14.7	C
156	Water main, Grandview Dr., sta 0+50 @ FSG	99	95	13.5	+-2	115.2@14.7	C
157	WS, Lots 1 & 2, Blk 1 @ FSG	99	95	13.2	+-2	115.2@14.7	C
158	Water fire hydrant, Lot 6, Blk 2 @ FSG	99	95	13.8	+-2	115.2@14.7	C
159	WS, Lot 6, Blk 2 @ FSG	100	95	15.3	+-2	115.2@14.7	C
160	WS, Lot 7, Blk 2 @ FSG	100	95	14.0	+-2	115.2@14.7	C
161	Water main, sta 2+50, Grandview Dr @ FSG	100	95	14.7	+-2	115.2@14.7	C
162	WS, Lots 3 & 4, Blk 1 @ FSG	99	95	14.3	+-2	115.2@14.7	C
163	WS, Lots 5 & 6, Blk 1 @ FSG	100	95	13.4	+-2	115.2@14.7	C
164	WS, Lots 7 & 8, Blk 1 @ FSG	99	95	14.1	+-2	115.2@14.7	C
165	Water main, sta 4+50 @ FSG	100	95	13.1	+-2	115.2@14.7	C

DISTRIBUTION: Page 2 of 3

1-Client 1-Ute Water

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GRAND JUNCTION LINCOLN DeVORE, INC.

BY: RL

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GRAND JUNCTION LINCOLN DeVORE

Geotechnical Engineers-Geologists

Client: Travis Jordan	Report No: 7
Project: Grandview Subdivision, Filing 4	Date of Test: 10-19-99
Location:	Test By: LS, RL
	GJLD Job No: 87684-GJ

TEST TYPE:	Nuclear (ASTM 2922) Backscatter	Nuclear (ASTM 2922) Direct Trans. X	(ASTM D-1556) Sand Cone	SPECIFICATIONS:	Project:	City: X	County:	State:

Test No.	Location of Test	COMPACTION %	COMPAC. SPEC. %	MOISTURE CONT. %	MOISTURE SPEC. %	PROCTOR VALUE	SOIL TYPE
166	Water main, sta 6+50 @ FSG	98	95	15.6	+-2	115.2@14.7	C
167	Water fire hydrant, Lots 8 & 9, Blk 2 @ FSG	100	95	13.1	+-2	115.2@14.7	C
168	WS, Lot 8, Blk 2 @ FSG	96	95	14.1	+-2	115.2@14.7	C
169	WS, Lot 9, Blk 2 @ FSG	98	95	14.5	+-2	115.2@14.7	C
170	WS, Lots 9 & 10, Blk 1 @ FSG	100	95	14.5	+-2	115.2@14.7	C
171	Water main, Grandview Dr, sta 0+25 @ FSG	96	95	13.9	+-2	115.2@14.7	C

DISTRIBUTION: Page 3 of 3

1-Client 1-Ute Water

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BY: RL

FILL DENSITY TEST DAILY REPORT

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GRAND JUNCTION LINCOLN DeVORE

Geotechnical Engineers-Geologists

Client: Travis Jordan	Report No: 8
Project: Grandview Subdivision, Filing 4	Date of Test: 10-20-99
Location:	Test By: RL
	GJLD Job No: 87684-GJ

TEST TYPE:	Nuclear (ASTM 2922) Backscatter	Nuclear (ASTM 2922) Direct Trans. X	(ASTM D-1556) Sand Cone	SPECIFICATIONS:	Project:	City: X	County:	State:

Test No.	Location of Test	COMPACTION %	COMPAC. SPEC. %	MOISTURE CONT. %	MOISTURE SPEC. %	PROCTOR VALUE	SOIL TYPE
172	Utility crossing, E. Pagosa Dr., sta 1+00 @ FSG	95	95	15.4	+-2	115.2@14.7	C
173	Water main, E. Pagosa Dr., sta 2+50 @ FSG	97	95	14.7	+-2	115.2@14.7	C
174	WS, Lots 1 & 2, Blk 3 @ FSG	96	95	14.4	+-2	115.2@14.7	C
175	WS, Lots 3 & 4, Blk 3 @ FSG	96	95	14.6	+-2	115.2@14.7	C
176	WS, Lot 5, Blk 3 @ FSG	97	95	16.6	+-2	115.2@14.7	C
177	WS, Lots 10 & 11, Blk 2 @ FSG	96	95	15.5	+-2	115.2@14.7	C
178	WS, Lot 6, Blk 3 @ FSG	99	95	14.9	+-2	115.2@14.7	C
179	Fire hydrant, E. Pagosa Dr., sta 1+00 @ FSG	97	95	15.8	+-2	115.2@14.7	C
180	Utility crossing, Conifer Ct., sta 0+20 @ FSG	98	95	15.8	+-2	115.2@14.7	C
181	Water main, Conifer Ct., sta 0+80 @ FSG	99	95	13.8	+-2	115.2@14.7	C
182	Water main, E. Pagosa Dr., sta 4+50 @ FSG	96	95	14.5	+-2	115.2@14.7	C
183	WS, Lots 11 & 12, Blk 1 @ FSG	96	95	14.1	+-2	115.2@14.7	C
184	Fire hydrant, E. Pagosa Dr., sta 4+50 @ FSG	96	95	13.7	+-2	115.2@14.7	C

DISTRIBUTION: Page 1 of 2

1-Client 1-Ute Water

1-Subdiv Env 1-City of GJ

1-Atkins & Assoc.

KEY: * Fails Compaction Spec. C = Cohesive

** Fails Moisture Spec. NC = NonCohesive

S Standard Proctor ABC = Aggregate Base

M Modified Proctor PR = Pit Run

GRAND JUNCTION LINCOLN DeVORE, INC.

BY: RL

FILL DENSITY TEST DAILY REPORT

NOTE: Results indicate in-place soil densities at the locations and depths identified above. Grand Junction Lincoln DeVore has relied on the contractor to provide uniform mix placement and compactive effort throughout the fill area.

Nuclear Density Testing of 'pit run' or other coarse grained soils may require correction of Unit Weight And Water Content, ASTM D-4718. If soils contain oversize particles in excess of the limits of ASTM D-4718

Nuclear Density Testing is performed for acceptance control and is combined with visual and penetration methods.

GRAND JUNCTION LINCOLN DeVORE

Geotechnical Engineers-Geologists

Client: Travis Jordan	Report No: 8
Project: Grandview Subdivision, Filing 4	Date of Test: 10-20-99
Location:	Test By: RL
	GJLD Job No: 87684-GJ

TEST TYPE:	Nuclear (ASTM 2922) Backscatter	Nuclear (ASTM 2922) Direct Trans. X	(ASTM D-1556) Sand Cone	SPECIFICATIONS:	Project:	City: X	County:	State:

Test No.	Location of Test	COMPACTION %	COMPAC. SPEC. %	MOISTURE CONT. %	MOISTURE SPEC. %	PROCTOR VALUE	SOIL TYPE
185	Utility crossing, Grandview Dr., sta 5+50 @ FSG	99	95	13.0	+-2	115.2@14.7	C
186	Utility crossing, Grandview Dr., sta 1+50 @ FSG	96	95	13.7	+-2	115.2@14.7	C

DISTRIBUTION: Page 2 of 2

1-Client 1-Ute Water

1-Subdiv Env 1-City of GJ

1-Atkins & Assoc.

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GRAND JUNCTION LINCOLN DeVORE, INC.

BY: RL

FILL DENSITY TEST DAILY REPORT

NOTE: Results indicate in-place soil densities at the locations and depths identified above. Grand Junction Lincoln DeVore has relied on the contractor to provide uniform mix placement and compactive effort throughout the fill area.

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GRAND JUNCTION LINCOLN DeVORE

Geotechnical Engineers-Geologists

Client: Travis Jordan	Report No: 9
Project: Grandview Subdivision, Filing 4	Date of Test: 10-27-99
Location:	Test By: LS, RL
	GJLD Job No: 87684-GJ

TEST TYPE:	Nuclear (ASTM 2922) Backscatter	Nuclear (ASTM 2922) Direct Trans. X	(ASTM D-1556) Sand Cone	SPECIFICATIONS:	Project:	City: X	County:	State:

Test No.	Location of Test	COMPACTION %	COMPAC. SPEC. %	MOISTURE CONT. %	MOISTURE SPEC. %	PROCTOR VALUE	SOIL TYPE
187	Sewer MH EP2 @ 4' BSG	100	95	13.4	+-2	115.2@14.7	C
188	Sewer MH EP2 @ 2' BSG	99	95	12.9	+-2	115.2@14.7	C
189	Sewer MH D1, Dillon Ct @ 3' BSG	100	95	13.1	+-2	115.2@14.7	C
190	Sewer main between MH EP2 & D1 @ 3' BSG	100	95	13.3	+-2	115.2@14.7	C
191	SS, Lot 7, Blk 3 @ 3' BSG	99	95	14.3	+-2	115.2@14.7	C
192	SS, Lt 8, Blk 3 @ 3' BSG	100	95	13.3	+-2	115.2@14.7	C
193	SS, Lot 9, Blk 3 @ 3' BSG	96	95	12.9	+-2	115.2@14.7	C
194	SS, Lot 13, Blk 1 @ 3' BSG	99	95	13.3	+-2	122.7@12.5	C
195	SS, Lot 10, Blk 3 @ 3' BSG	96	95	14.0	+-2	122.7@12.5	C
196	SS, Lot 14, Blk 1 @ 3' BSG	95	95	13.5	+-2	122.7@12.5	C
197	SS, Lot 11, Blk 3 @ 3' BSG	96	95	12.7	+-2	115.2@14.7	C
198	Sewer main between MH EP2 & EP3 @ 3' BSG	97	95	13.2	+-2	115.2@14.7	C
199	SS, Lot 15, Blk 1 @ 3' BSG	99	95	14.8	+-2	115.2@14.7	C

DISTRIBUTION: Page 1 of 2

1-Client 1-Ute Water

1-Subdiv Env 1-City of GJ

1-Atkins & Assoc.

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S Standard Proctor ABC = Aggregate Base

M Modified Proctor PR = Pit Run

GRAND JUNCTION LINCOLN DeVORE, INC.

BY: RL

FILL DENSITY TEST DAILY REPORT

NOTE: Results indicate in-place soil densities at the locations and depths identified above. Grand Junction Lincoln DeVore has relied on the contractor to provide uniform mix placement and compactive effort throughout the fill area.

Nuclear Density Testing of 'pit run' or other coarse grained soils may require correction of Unit Weight And Water Content, ASTM D-4718. If soils contain oversize particles in excess of the limits of ASTM D-4718

Nuclear Density Testing is performed for acceptance control and is combined with visual and penetration methods.

GRAND JUNCTION LINCOLN DeVORE

Geotechnical Engineers-Geologists

Client: Travis Jordan	Report No: 9
Project: Grandview Subdivision, Filing 4	Date of Test: 10-27-99
Location:	Test By: LS, RL
	GJLD Job No: 87684-GJ

TEST TYPE:	Nuclear (ASTM 2922) Backscatter	Nuclear (ASTM 2922) Direct Trans. X	(ASTM D-1556) Sand Cone	SPECIFICATIONS:	Project:	City: X	County:	State:

Test No.	Location of Test	COMPACTION %	COMPAC. SPEC. %	MOISTURE CONT. %	MOISTURE SPEC. %	PROCTOR VALUE	SOIL TYPE
200	Sewer MH EP3 @ 3' BSG	95	95	13.3	+-2	115.2@14.7	C
201	Sewer MH K1, Keystone @ 2' BSG	97	95	13.1	+-2	115.2@14.7	C
202	Sewer main between MH EP3 & K1 @ 3' BSG	96	95	13.4	+-2	115.2@14.7	C
203	SS, Lot 12, Blk 3 @ 2' BSG	95	95	12.8	+-2	115.2@14.7	C
204	SS, Lot 13, Blk 3 @ 2' BSG	100	95	13.8	+-2	115.2@14.7	C
205	SS, Lot 14, Blk 3 @ 2' BSG	98	95	13.1	+-2	115.2@14.7	C

DISTRIBUTION: Page 2 of 2

1-Client 1-Ute Water

1-Subdiv Env 1-City of GJ

1-Atkins & Assoc.

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GRAND JUNCTION LINCOLN DeVORE, INC.

BY: RL

FILL DENSITY TEST DAILY REPORT

NOTE: Results indicate in-place soil densities at the locations and depths identified above. Grand Junction Lincoln DeVore has relied on the contractor to provide uniform mix placement and compactive effort throughout the fill area.

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GRAND JUNCTION LINCOLN DeVORE

Geotechnical Engineers-Geologists

Client: Travis Jordan	Report No: 10
Project: Grandview Subdivision, Filing 4	Date of Test: 10-28-99
Location:	Test By: LS, RL
	GJLD Job No: 87684-GJ

TEST TYPE:	Nuclear (ASTM 2922) Backscatter	Nuclear (ASTM 2922) Direct Trans. X	(ASTM D-1556) Sand Cone	SPECIFICATIONS:	Project:	City: X	County:	State:

Test No.	Location of Test	COMPACTION %	COMPAC. SPEC. %	MOISTURE CONT. %	MOISTURE SPEC. %	PROCTOR VALUE	SOIL TYPE
206	Sewer MH K1 @ 1' BSG	100	95	14.1	+-2	115.2@14.7	C
207	Sewer main between MH EP3 & K1 @ 1' BSG	100	95	13.9	+-2	115.2@14.7	C
208	SS, Lot 14, Blk 3 @ 1' BSG	100	95	15.3	+-2	115.2@14.7	C
209	SS, Lot 13, Blk 3 @ 1' BSG	96	95	16.5	+-2	115.2@14.7	C
210	SS, Lot 12, Blk 3 @ 1' BSG	97	95	15.0	+-2	115.2@14.7	C
211	Sewer MH EP3 @ 1' BSG	96	95	13.1	+-2	115.2@14.7	C
212	Sewer main between MH EP3 & EP2 @ 1' BSG	96	95	13.4	+-2	115.2@14.7	C
213	SS, Lot 15, Blk 1 @ 1' BSG	98	95	13.8	+-2	115.2@14.7	C
214	SS, Lot 11, Blk 3 @ 1' BSG	100	95	13.8	+-2	115.2@14.7	C
215	SS, Lot 14, Blk 1 @ 1' BSG	95	95	12.9	+-2	115.2@14.7	C
216	SS, Lot 10, Blk 3 @ 1' BSG	100	95	12.8	+-2	115.2@14.7	C
217	SS, Lot 13, Blk 3 @ 1' BSG	100	95	12.9	+-2	115.2@14.7	C
218	Sewer main between MH MHJ & EP2 @ 2' BSG	100	95	13.0	+-2	115.2@14.7	C

DISTRIBUTION: Page 1 of 2

1-Client 1-Ute Water

1-Subdiv Env 1-City of GJ

1-Atkins & Assoc.

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S Standard Proctor ABC = Aggregate Base

M Modified Proctor PR = Pit Run

GRAND JUNCTION LINCOLN DeVORE, INC.

BY:

FILL DENSITY TEST DAILY REPORT

NOTE: Results indicate in-place soil densities at the locations and depths identified above. Grand Junction Lincoln DeVore has relied on the contractor to provide uniform mix placement and compactive effort throughout the fill area.

Nuclear Density Testing of 'pit run' or other coarse grained soils may require correction of Unit Weight And Water Content, ASTM D-4718. If soils contain oversize particles in excess of the limits of ASTM D-4718

Nuclear Density Testing is performed for acceptance control and is combined with visual and penetration methods.

GRAND JUNCTION LINCOLN DeVORE

Geotechnical Engineers-Geologists

Client: Travis Jordan	Report No: 10
Project: Grandview Subdivision, Filing 4	Date of Test: 10-28-99
Location:	Test By: LS, RL
	GJLD Job No: 87684-GJ

TEST TYPE:	Nuclear (ASTM 2922) Backscatter	Nuclear (ASTM 2922) Direct Trans. X	(ASTM D-1556) Sand Cone	SPECIFICATIONS:	Project:	City: X	County:	State:

Test No.	Location of Test	COMPACTION %	COMPAC. SPEC. %	MOISTURE CONT. %	MOISTURE SPEC. %	PROCTOR VALUE	SOIL TYPE
219	SS, Lot 7, Blk 3 @ 2' BSG	96	95	15.0	+-2	115.2@14.7	C
220	SS, Lot 8, Blk 3 @ 2' BSG	100	95	12.8	+-2	115.2@14.7	C
221	SS, Lot 9, Blk 3 @ 2' BSG	96	95	13.3	+-2	115.2@14.7	C
222	Sewer MH MH1 @ 2' BSG	100	95	13.2	+-2	115.2@14.7	C

DISTRIBUTION: Page 2 of 2

1-Client 1-Ute Water

1-Subdiv Env 1-City of GJ

1-Atkins & Assoc.

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GRAND JUNCTION LINCOLN DeVORE, INC.

BY:

FILL DENSITY TEST DAILY REPORT

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GRAND JUNCTION LINCOLN DeVORE

Geotechnical Engineers-Geologists

Client: Travis Jordan	Report No: 11
Project: Grandview Subdivision, Filing 4	Date of Test: 10-29-99
Location:	Test By: RL
	GJLD Job No: 87684-GJ

TEST TYPE:	Nuclear (ASTM 2922) Backscatter	Nuclear (ASTM 2922) Direct Trans. X	(ASTM D-1556) Sand Cone	SPECIFICATIONS:	Project:	City: X	County:	State:

Test No.	Location of Test	COMPACTION %	COMPAC. SPEC. %	MOISTURE CONT. %	MOISTURE SPEC. %	PROCTOR VALUE	SOIL TYPE
223	MH EP2 @ FSG	96	95	13.8	+-2	115.2@14.7	C
224	Sewer main between MH EP2 & D1 @ FSG	95	95	13.2	+-2	115.2@14.7	C
225	MH D1 @ FSG	97	95	12.9	+-2	115.2@14.7	C
226	SS, Lot 7, Blk 3 @ FSG	98	95	12.8	+-2	115.2@14.7	C
227	SS, Lot 8, Blk 3 @ FSG	97	95	13.3	+-2	115.2@14.7	C
228	SS, Lot 9, Blk 3 @ FSG	96	95	13.1	+-2	115.2@14.7	C
229	SS, Lot 10, Blk 3 @ FSG	95	95	13.8	+-2	115.2@14.7	C
230	SS, Lot 13, Blk 1 @ FSG	95	95	14.4	+-2	115.2@14.7	C
231	Sewer main between MH EP2 & EP3 @ FSG	95	95	14.3	+-2	115.2@14.7	C
232	SS, Lot 14, Blk 1 @ FSG	95	95	13.6	+-2	115.2@14.7	C
233	SS, Lot 11, Blk 3 @ FSG	96	95	14.6	+-2	115.2@14.7	C
234	SS, Lot 15, Blk 1 @ FSG	98	95	13.5	+-2	115.2@14.7	C
235	MH EP3 @ FSG	95	95	15.8	+-2	115.2@14.7	C

DISTRIBUTION: Page 1 of 3

1-Client 1-Ute Water

1-Subdiv Env 1-City of GJ

1-Atkins & Assoc.

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GRAND JUNCTION LINCOLN DeVORE, INC.

BY: RL

FILL DENSITY TEST DAILY REPORT

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GRAND JUNCTION LINCOLN DeVORE

Geotechnical Engineers-Geologists

GRANDVIEW SUBDIVISION
FILINGS 5/6

GRAND JUNCTION
LINCOLN - DeVORE, Inc.

Geotechnical Consultants
Grand Junction, Colorado

GRANDVIEW SUBDIVISION
FILINGS 5/6

Client: Travis Jordan	Report No: 1
Project: Grandview Subdivision, Fil. 5/6	Date of Test: 5-21-01
Location:	Test By: RL
	GJLD Job No: 88692-GJ

TEST TYPE:	Nuclear (ASTM 2922) Backscatter	Nuclear (ASTM 2922) Direct Trans. X	(ASTM D-1556) Sand Cone

SPECIFICATIONS: Project: City: X County: State:

Test No.	Location of Test	COMPACTION %	COMPAC. SPEC. %	MOISTURE CONT. %	MOISTURE SPEC. %	PROCTOR VALUE	SOIL TYPE
1	Sewer MH TA-1 @ -2' BSG	98	95	13.3	+-2	115.2@14.7	C
2	SS, Lot 1, Blk 1 @ -2' BSG	100	95	13.4	+-2	115.2@14.7	C
3	SS, Lot 1, Blk 2 @ -2' BSG	97	95	13.4	+-2	115.2@14.7	C
4	Sewer main, between MH TA-1 & TA-2 @ -2' BSG	99	95	12.8	+-2	115.2@14.7	C

DISTRIBUTION:

1-Client 1-Ute Water

1-Subdiv Env 1-City of GJ

1-Atkins & Assoc.

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GRAND JUNCTION LINCOLN DeVORE, INC.

BY: RL

FILL DENSITY TEST DAILY REPORT

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GRAND JUNCTION LINCOLN DeVORE

Geotechnical Engineers-Geologists

Client: Travis Jordan	Report No: 2
Project: Grandview Subdivision, Fil. 5/6	Date of Test: 5-22-01
Location:	Test By: LS
	GJLD Job No: 88692-GJ

TEST TYPE:	Nuclear (ASTM 2922) Backscatter	Nuclear (ASTM 2922) Direct Trans. X	(ASTM D-1556) Sand Cone	SPECIFICATIONS:	Project:	City: X	County:	State:

Test No.	Location of Test	COMPACTION %	COMPAC. SPEC. %	MOISTURE CONT. %	MOISTURE SPEC. %	PROCTOR VALUE	SOIL TYPE
5	SS, Lot 2, Blk 1 @ 2' BSG	95	95	13.5	+-2	115.2@14.7	C
6	SS, Lot 2, Blk 2 @ 2' BSG	95	95	13.8	+-2	115.2@14.7	C
7	SS, Lot 3, Blk 1 @ 2' BSG	96	95	14.1	+-2	115.2@14.7	C
8	SS, Lot 3, Blk 2 @ 2' BSG	97	95	15.0	+-2	115.2@14.7	C
9	Sewer main between MH TA-1 & TA-2 @ 2' BSG	98	95	14.2	+-2	115.2@14.7	C
10	SS, Lot 4, Blk 1 @ 2' BSG	96	95	13.7	+-2	115.2@14.7	C
11	SS, Lot 4, Blk 2 @ 2' BSG	98	95	15.8	+-2	115.2@14.7	C
12	Sewer MH TP-2 @ 2' BSG	95	95	13.7	+-2	115.2@14.7	C
13	SS, Lot 5, Blk 1 @ 2' BSG	100	95	15.1	+-2	115.2@14.7	C
14	SS, Lot 5, Blk 2 @ 2' BSG	95	95	15.5	+-2	115.2@14.7	C
15	Sewer main between MH TP-2 & TP-3 @ 2' BSG	98	95	14.7	+-2	115.2@14.7	C
16	SS, Lot 6, Blk 1 @ 2' BSG	97	95	14.9	+-2	115.2@14.7	C
17	SS, Lot 7, Blk 1 @ 2' BSG	97	95	15.3	+-2	115.2@14.7	C

DISTRIBUTION: Page 1 of 2

1-Client 1-Ute Water

1-Subdiv Env 1-City of GJ

1-Atkins & Assoc.

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GRAND JUNCTION LINCOLN DeVORE, INC.

BY:

FILL DENSITY TEST DAILY REPORT

NOTE: Results indicate in-place soil densities at the locations and depths identified above. Grand Junction Lincoln DeVore has relied on the contractor to provide uniform mix placement and compactive effort throughout the fill area.

Nuclear Density Testing of 'pit run' or other coarse grained soils may require correction of Unit Weight And Water Content, ASTM D-4718. If soils contain oversize particles in excess of the limits of ASTM D-4718

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GRAND JUNCTION LINCOLN DeVORE

Geotechnical Engineers-Geologists

Client: Travis Jordan	Report No: 2
Project: Grandview Subdivision, Fil. 5/6	Date of Test: 5-22-01
Location:	Test By: LS
	GJLD Job No: 88692-GJ

TEST TYPE:	Nuclear (ASTM 2922) Backscatter	Nuclear (ASTM 2922) Direct Trans. X	(ASTM D-1556) Sand Cone	SPECIFICATIONS:	Project:	City: X	County:	State:

Test No.	Location of Test	COMPACTION %	COMPAC. SPEC. %	MOISTURE CONT. %	MOISTURE SPEC. %	PROCTOR VALUE	SOIL TYPE
18	SS, Lot 7, Blk 2 @ 2' BSG	99	95	13.1	+-2	115.2@14.7	C
19	SS, Lot 8, Blk 1 @ 2' BSG	99	95	14.0	+-2	115.2@14.7	C
20	SS, Lot 8, Blk 2 @ 2' BSG	98	95	13.8	+-2	115.2@14.7	C
21	SS, Lot 9, Blk 1 @ 2' BSG	96	95	13.7	+-2	115.2@14.7	C
22	Sewer MH TP-3 @ 2' BGS	97	95	13.9	+-2	115.2@14.7	C
23	SS, Lot 6, Blk 2 @ 2' BSG	98	95	13.6	+-2	115.2@14.7	C

DISTRIBUTION: Page 2 of 2

1-Client 1-Ute Water

1-Subdiv Env 1-City of GJ

1-Atkins & Assoc.

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GRAND JUNCTION LINCOLN DeVORE, INC.

BY:

FILL DENSITY TEST DAILY REPORT

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GRAND JUNCTION LINCOLN DeVORE

Geotechnical Engineers-Geologists

Client: Travis Jordan	Report No: 3
Project: Grandview Subdivision, Fil. 5/6	Date of Test: 5-23-01
Location:	Test By: LS
	GJLD Job No: 88692-GJ

TEST TYPE:	Nuclear (ASTM 2922) Backscatter	Nuclear (ASTM 2922) Direct Trans. X	(ASTM D-1556) Sand Cone	SPECIFICATIONS:	Project:	City: X	County:	State:

Test No.	Location of Test	COMPACTION %	COMPAC. SPEC. %	MOISTURE CONT. %	MOISTURE SPEC. %	PROCTOR VALUE	SOIL TYPE
24	Sewer MH TP1 @ FSG	96	95	14.0	+-2	115.2@14.7	C
25	Sewer main between MH TP1 & TP2 @ FSG	95	95	13.5	+-2	115.2@14.7	C
26	SS, Lot 1, Blk 1 @ FSG	97	95	13.8	+-2	115.2@14.7	C
27	SS, Lot 1, Blk 2 @ FSG	98	95	15.0	+-2	115.2@14.7	C
28	SS, Lot 2, Blk 1 @ FSG	99	95	15.1	+-2	115.2@14.7	C
29	SS, Lot 2, Blk 2 @ FSG	99	95	14.7	+-2	115.2@14.7	C
30	SS, Lot 3, Blk 1 @ FSG	96	95	13.5	+-2	115.2@14.7	C
31	SS, Lot 3, Blk 2 @ FSg	95	95	13.0	+-2	115.2@14.7	C
32	SS, Lot 4, Blk 1 @ FSG	99	95	14.7	+-2	115.2@14.7	C
33	SS, Lot 4, Blk 2 @ FSG	97	95	14.1	+-2	115.2@14.7	C
34	Sewer MHP TP2 @ FSG	98	95	13.7	+-2	115.2@14.7	C
35	Sewer main between MH TP2 & TP3 @ 1' BSG	98	95	14.6	+-2	115.2@14.7	C
36	SS, Lot 1, Blk 1 @ 2' BSG	97	95	15.3	+-2	115.2@14.7	C

DISTRIBUTION: Page 1 of 2

1-Client 1-Ute Water

1-Subdiv Env 1-City of GJ

1-Atkins & Assoc.

KEY: * Fails Compaction Spec. C = Cohesive

** Fails Moisture Spec. NC = NonCohesive

S Standard Proctor ABC = Aggregate Base

M Modified Proctor PR = Pit Run

GRAND JUNCTION LINCOLN DeVORE, INC.

BY:

FILL DENSITY TEST DAILY REPORT

NOTE: Results indicate in-place soil densities at the locations and depths identified above. Grand Junction Lincoln DeVore has relied on the contractor to provide uniform mix placement and compactive effort throughout the fill area.

Nuclear Density Testing of 'pit run' or other coarse grained soils may require correction of Unit Weight And Water Content, ASTM D-4718. If soils contain oversize particles in excess of the limits of ASTM D-4718

Nuclear Density Testing is performed for acceptance control and is combined with visual and penetration methods.

GRAND JUNCTION LINCOLN DeVORE

Geotechnical Engineers-Geologists

Client: Travis Jordan	Report No: 3
Project: Grandview Subdivision, Fil. 5/6	Date of Test: 5-23-01
Location:	Test By: LS
	GJLD Job No: 88692-GJ

TEST TYPE:	Nuclear (ASTM 2922) Backscatter	Nuclear (ASTM 2922) Direct Trans. X	(ASTM D-1556) Sand Cone	SPECIFICATIONS:	Project:	City: X	County:	State:

Test No.	Location of Test	COMPACTION %	COMPAC. SPEC. %	MOISTURE CONT. %	MOISTURE SPEC. %	PROCTOR VALUE	SOIL TYPE
37	SS, Lot 5, Blk 2 @ 1' BSG	97	95	14.4	+-2	115.2@14.7	C
38	SS, Lot 6, Blk 1 @ 1' BSG	95	95	13.3	+-2	115.2@14.7	C
39	SS, Lot 7, Blk 1 @ 18" BSG	95	95	13.0	+-2	115.2@14.7	C
40	SS, Lot 7, Blk 2 @ 18" BSG	95	95	13.6	+-2	115.2@14.7	C
41	SS, Lot 8, Blk 2 @ 1' BSG	99	95	14.9	+-2	115.2@14.7	C
42	SS, Lot 8, Blk 2 @ 1' BSG	97	95	15.4	+-2	115.2@14.7	C
43	SS, Lot 9, Blk 1 @ 1' BSG	95	95	13.2	+-2	115.2@14.7	C
44	Sewer MH TP3 @ 1' BSG	96	95	13.4	+-2	115.2@14.7	C

DISTRIBUTION: Page 2 of 2

1-Client 1-Ute Water

1-Subdiv Env 1-City of GJ

1-Atkins & Assoc.

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S Standard Proctor ABC = Aggregate Base

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GRAND JUNCTION LINCOLN DeVORE, INC.

BY:

FILL DENSITY TEST DAILY REPORT

NOTE: Results indicate in-place soil densities at the locations and depths identified above. Grand Junction Lincoln DeVore has relied on the contractor to provide uniform mix placement and compactive effort throughout the fill area.

Nuclear Density Testing of 'pit run' or other coarse grained soils may require correction of Unit Weight And Water Content, ASTM D-4718. If soils contain oversize particles in excess of the limits of ASTM D-4718

Nuclear Density Testing is performed for acceptance control and is combined with visual and penetration methods.

GRAND JUNCTION LINCOLN DeVORE

Geotechnical Engineers-Geologists

Client: Travis Jordan	Report No: 4
Project: Grandview Subdivision, Fil. 5/6	Date of Test: 5-24-01
Location:	Test By: LS, RL
	GJLD Job No: 88692-GJ

TEST TYPE:	Nuclear (ASTM 2922) Backscatter	Nuclear (ASTM 2922) Direct Trans. X	(ASTM D-1556) Sand Cone

SPECIFICATIONS: Project: City: X County: State:

Test No.	Location of Test	COMPACTION %	COMPAC. SPEC. %	MOISTURE CONT. %	MOISTURE SPEC. %	PROCTOR VALUE	SOIL TYPE
45	SS, Lot 9, Blk 2 @ 4' BSG	96	95	14.4	+-2	115.2@14.7	C
46	Sewer existing MH @ 4' BSG	95	95	13.4	+-2	115.2@14.7	C
47	SS, Lot 1, Blk 4 @ 4' BSG	95	95	13.1	+-2	115.2@14.7	C
48	Sewer main between existing & MH TB1 @ 4' BSG	95	95	12.9	+-2	115.2@14.7	C
49	SS, Lot 9, Blk 2 @ -2' BSG	99	95	12.7	+-2	115.2@14.7	C
50	SS, Lot 1, Blk 4 @ -2' BSG	100	95	13.2	+-2	115.2@14.7	C
51	Sewer MH TB1/RO2 @ -2' BSG	100	95	13.6	+-2	115.2@14.7	C
52	Sewer main between MH RO2 & RO3 @ -2' BSG	99	95	13.7	+-2	115.2@14.7	C

DISTRIBUTION:

1-Client 1-Ute Water

1-Subdiv Env 1-City of GJ

1-Atkins & Assoc.

KEY: * Fails Compaction Spec. C = Cohesive

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S Standard Proctor ABC = Aggregate Base

M Modified Proctor PR = Pit Run

GRAND JUNCTION LINCOLN DeVORE, INC.

BY: RL

FILL DENSITY TEST DAILY REPORT

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Nuclear Density Testing of 'pit run' or other coarse grained soils may require correction of Unit Weight And Water Content, ASTM D-4718. If soils contain oversize particles in excess of the limits of ASTM D-4718

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GRAND JUNCTION LINCOLN DeVORE

Geotechnical Engineers-Geologists

Client: Travis Jordan	Report No: 5
Project: Grandview Subdivision, Fil. 5/6	Date of Test: 6-1-01
Location:	Test By: LS, JS
	GJLD Job No: 88692-GJ

TEST TYPE:	Nuclear (ASTM 2922) Backscatter	Nuclear (ASTM 2922) Direct Trans. X	(ASTM D-1556) Sand Cone	SPECIFICATIONS:	Project:	City: X	County:	State:

Test No.	Location of Test	COMPACTION %	COMPAC. SPEC. %	MOISTURE CONT. %	MOISTURE SPEC. %	PROCTOR VALUE	SOIL TYPE
53	Sewer MH CA1 @ 2' BSG	100	95	14.2	+-2	115.2@14.7	C
54	Sewer MH CA1 @ FSG	95	95	13.8	+-2	115.2@14.7	C
55	Sewer main between MH CA1 & CA2 @ 2' BSG	100	95	14.3	+-2	115.2@14.7	C
56	Sewer main between MH CA1 & CA2 @ FSG	100	95	14.2	+-2	115.2@14.7	C
57	SS, Lot 13, Blk 2 @ 2' BSG	96	95	13.9	+-2	115.2@14.7	C

DISTRIBUTION:

1-Client 1-Ute Water

1-Subdiv Env 1-City of GJ

1-Atkins & Assoc.

KEY: * Fails Compaction Spec. C = Cohesive

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S Standard Proctor ABC = Aggregate Base

M Modified Proctor PR = Pit Run

GRAND JUNCTION LINCOLN DeVORE, INC.

SRB

BY:

FILL DENSITY TEST DAILY REPORT

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Nuclear Density Testing of 'pit run' or other coarse grained soils may require correction of Unit Weight And Water Content, ASTM D-4718. If soils contain oversize particles in excess of the limits of ASTM D-4718

Nuclear Density Testing is performed for acceptance control and is combined with visual and penetration methods.

GRAND JUNCTION LINCOLN DeVORE

Geotechnical Engineers-Geologists